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An

Inaugural Thesis.

On

Phthisis Pulmonalis

Presented.

To the Faculty

Of

The Medical Institution of Yale College.

For

The Degree of Doctor of Medicine

By.

George Parkinson

Of.

Canada West.

1864.

Tubercular Phthisis or Pulmonary consumption is, no more than the fragment of a great Constitutional malady, which plays its part most conspicuously in the lungs, but its mortal tendency is accelerated by a disease of a similar character situated in other organs. No period of

life is exempt from this disease. —
It is not confined to the aged, but produces
its havoc among the young, the most —
gifted, and the most beautiful of the —
human race.

Tubercles are composed of unor
ganized matter, deposited from the blood,
of a yellowish colour opaque and friable.
Besides this true and undisputed species
of tubercle, you will often find the lung
more or less thickly studded with a number
of small granules of firmer consistence —
almost as hard as cartilage. Semi —
transparent, and of a bluish-gray colour
which are sometimes called miliary —
Sometimes the granulations of Bayle, —
who first described them. By some —
it is supposed that these varieties merely
represent two stages of the same disease
The deposit most generally takes place
in the upper part of the lung, and —
extends from above downwards, but it

may begin at any other part of the lung. Softening generally commences in the centre of the tubercles. They slowly become converted into a liquid which tends to be evacuated through the bronchial tubes and expectorated, leaving cavities, excavations or domicils behind, of various sizes. Sometimes these cavities close and heal; more frequently matter continues to be deposited on their sides and in other parts of the lungs, until their organs become diseased to an extent incompatible with life. Some authors have divided this into three stages. The first extending from the formation of tubercles to the time of softening. Second the time of excavation. Third when cavities are formed. I shall follow the instructions of my learned teachers and divide it into two. The first extending up to the time that cavities are formed. The second after

they are formed. The Symptoms of the first Stage. We have cough which is usually Slight and occasional at first, accompanied with but little or no ——— expectoration. Frequently there is ——— haemoptysis, which occurring at variable intervals, gives the first intimation of the disease. The patient complains of Langour ascending a hill or going up Stairs causes fatigue, hurries the breathing, and often gives rise to palpitation. As the disease advances the ~~disease~~ Cough becomes more ——— troublesome, and the expectoration is ——— more abundent. When this state has ——— lasted for some time during which the cough and expectoration have been increasing, hectic fever appears ——— The appetite becomes impaired. ——— Muscular Strength becomes diminished. In females the Menses may become suppressed. In the second Stage. The Symptoms ——— of the first Stage are continued and ———

increased in Severity. The expectoration may be very great, depending on the Size of the cavity. This is always a test of the Size of the cavity. The pulse is more or less expectorated. In this Stage of the disease the mind is very much affected, they think but lightly of the disease and expect nothing but recovery and health; when convinced, however, of their danger they quickly become reconciled to their fate. The debility becomes more marked; the countenance is frequently flushed; Chillings is complained of in the evening, while on awaking in the morning the body is found bathed in a profuse Sweat. The patient rapidly looses flesh: diarrhoea often sets in and increases the feebleness. The lower extremities become oedematous and death soon ends the Scene. The physical signs are to be obtained by percussion and auscultation

In the first stage we have more or less solidification of the lung, hence we have dullness on percussion on the side affected. The act of expiration will be long prolonged. Bronchial respiration and bronchophony will be audible. The vesicular murmur will be feeble or even absent. — The tubercles increase both in number and size, and occasion dyspnœa. — In the second stage auscultation elicits a peculiar sound called — gurgling or humid crackle. Caused by the bubbling of air with the fluids or mucus contained in the cavity. — When the cavity contains no liquid, we hear cavernous respiration; if it be large amphoric resonence and — pectoriloquy will also be distinguishable

The pathology of Phthisis. —

It is not essentially a primary disease but it is to be regarded as the effect —

of a peculiar constitutional disease
We suppose it to be a disease of
the blood. Some constitutional change,
occurrying without much inflamation;
if it occurs it is a mere coincidence
In the prognosis of Phthisis we will —
always be guided by the severity of the —
attact; it is always to be regarded as a
serious disease, but if the deposit be —
confined to one place it will be favourable —
If both lungs are affected or one much
diffused it will be unfavourable. —
When there is a rapid pulse with heat
of the surface, great emaciation ——
serious laryngeal affections with a
husky voice, the prognosis will also be
unfavourable.

The causes of this disease are
numerous. Various occupations predispose
to it. Such as Stone cutters, brass and
steel pointers polishers, needle pointers,
And many others who of necessity inhale —

during their labour an atmosphere loaded with irritating particles of matter. Any cause which affects the assimulation predisposes to it. — Insufficient and bad food, impure air, deficiency of light. Season. Occupation Climate. Humidity.

Phthisis may be inherited or it may be acquired; it is not contagious. Its ordinary duration is about six or nine months; it rarely proves fatal in three months. — According to statistical history the greatest number of deaths from Phthisis happens between the ages of twenty and thirty; the next greatest number from thirty to forty; the next from ten to twenty. Then from forty to fifty. — This disease can not be easily generated in a sound Constitution. — The curative treatment of Phthisis consists in removing the pathological —

condition of the System upon which the disease depends. We have no Special Medications, or rather no-Specific remedies; the most important are hygieme. Everything which tends to deminish the vital powers are — contraindicated in the treatment of this disease; we will, therefore, support and invigorate the system by giving a generous but unstimulating diet = The body should be clothed with warm material which are non-conductors - such as silk or wool. ——

Out door exercise; riding on horse-back. They should have some out-door occupation, so as to keep the mind at rest, and they should be encouraged so as to make the necessary efforts to recover; for they are prone to set-down and think that they will get well. Change of climate may often suspend the progress of this disorder.

I do not think that there is any specific influence in any climate the patient should choose one that is uniform in its nature; again if a person feels most vigorous in the Summer he should choose a warm climate; if but if he feels most vigorous in the Winter he should select a cold climate. Great benefit is sometimes derived from going to Europe, but as a rule if the patient is much enfeebled you will hesitate about sending him from his family and friend, to seek advantages among strangers. It will often be necessary to remove permanently. The remedial agents which are to be employed in the cure of this disease first Alcoholic Stimulants. I think that they are anti-tuberculous agents, and possess certain curative effects; but all cases are not to be-

treated in this way for they will not be benefited by it.

If they produce a cordial effect and do not excite the nervous System, they will be found beneficial. I would recommend the kind of Stimulous which the patient prefers and give all that can be taken without exciting the circulation.

Iodine and its compounds, and especially the Iodide of potassium have been much praised for their repeated efficacy in Phthisis. — — The oil obtained from the liver of the Cod-fish has been extensively — administered, with unquestionable benefit in Strumous disorders, and especially in pulmonary Phthisis. The hypophosphates are useful as a tonic. Counter irritation is often of undoubted service. — —

Emetics frequently repeated, have been recommended in the early Stages of Phthisis, but I should be opposed to such heroic treatment. As it is a disease of fault — assimulation, everything which tends to diminish the powers of the System is contraindicated. Steel is a — Substance which exercises a marked influence Sometimes over the — hectic fever. Superfluous cough is to be arrested, by the use of Opiates, inhilations of the vapour of Chloroform and Ether. The diarrhoea may be held in check by Opium, the — tincture of Catechu and Rhatany, — combined with Laudanum, — and with the officinal Chalk-Mixture. Another Symptom which is both distressing and weakening is the Nocturnal perspiration. This may be alleviated by dilute Sulphuric —

Acid, or by Sponging the Surface of the body with tepid vinegar and water, at bed-time. The complications of Phthisis will require to be treated as they may arise in each individual case. I have thus briefly enumerated the principal Symptoms and the different remedies by which one may expect to effect a cure, and by which we may palliate the sufferings of a Consumptive patient.

Rheumatic Fever

By

Wm H Hine

There is no question more perplexing to the Medical Student on the coming examination for his degree. than what shall be written for a Thesis. the subjects from which he is to select are without number all of which have been written upon time after time. still he can hardly think but that there is yet left one subject upon which but comparatively few have written. whereby he may bring out some new ideas to often asserting things which he and no one else believe. were we alway to write from personal experiance I for one should find no difficulty in selecting a subject. but in considering the question a second time my decision was to write upon that subject with which I felt best acquainted. and of that disease which I have seen the most cases of and have had occasion to note particularly during my studies. and for this reason I have selected Rheumatism. but shall speak only of the Acute form of the disease or as it is very properly called Rheumatic Fever which name I consider preferable to any other.

Among the many diseases with which the Physician has to deal there is none more common than Rheumatic Fever, as it is one of the most common so also is it one of the most painful and sometimes dangerous. and for this reason if for no other it should have the careful attention of every Medical Man. especially the young Physician. for should he by chance meet for his first case one of Rheumatic Fever and conduct his patient safely through the attack. his reputation might become established and his future success made sure. There is no disease with which we may meet. that when properly managed will yield more readily to our remedies. and the certainty with which in a majority of cases the sufferings are relieved. it may lead us to look at it by us to common to receive any attention. save as we may meet it from time to time.

Before speaking of the disease any further it may be well to consider very briefly what is at present known of its pathology. This like many other things in the science of Medicine

to get to be determined and to give us a correct idea in regard to this it is necessary that a histological examination of the tissues which become affected in the disease should be made in order to clear up the mystery and give us its true character. this so far as I am able to ascertain has never been attempted but twice and then without any definate result. At the present theory by some in regard to the affection is that there is an increase of lithic acid in the blood. while by others it is concluded as nothing more than ordinary inflimation of a specific or specific kind whose tendency it is to manifest itself in the fibrous tissue. but the erratic character of the disease is in direct opposition to what is at present known of the progressive course of real inflimation. and the mystery is by no means clear when it is called rheumathic inflimation. since the present state of our knowledge in regard to the true character of the disease is purely speculative. but the theory which considers

Rheumatism as a blood disease may & think on
the whole be considered as the correct one. yet
with such a theory it does not explain to
us the symptoms of Rheumatic fever. when
with the constitutional disorders we have
pain heat redness and swelling and in
addition to these febrile symptoms. but
the excretions both by skin and kidneys
are strongly in favor of the acid theory.
Rheumatic fever presents violent and local
affections coming on generally with symptoms
of fever of a remittent form. sometimes pre-
ceding the local affections. as a general rule
such is not the case. like inflimation it consists
of pain heat redness and swelling. and the
order and frequency in which these symptoms
appear is first. the pain. second swelling.
thirdly the redness. in addition to these
symptoms the patient complains of chilli-
ness with a feeling of numbness which is
generally pain or aching especially upon any
movement. the pain is violent and acute

which is soon followed by the swelling. Then is also increased heat. The skin is hot and dry. The pain which is so sharp and lancinating by some described as Tearing is generally followed by soreness. The redness which in a majority of cases is present is sometimes wanting and the part affected remains its natural color. Throughout the attack the Tenderness is exquisite. The least jar of the bed or pressure even so slight upon the part affected or even upon the bed clothes occasions the greatest suffering. The patient does not change his position as Dr Watson says and I think very truly. That the patient dare not move because the effort gives him so much pain. The pulse are full and bounding the skin which at first is hot and dry after a time becomes moist perspiration soon follows and the perspiration attending this disease is peculiar of a very disagreeable sour or acid odor and if the attendants sense of smell be at all acute he will detect it at once

upon entering his patients room and after
once becoming familiar with this odor it
will ever after be remembed by him. The
soaking perspiration weakens the patient
yet it does not lessen his sufferings. So say
our best authors and it may be presumptuous
for me to contradict it. but I think with this
free perspiration there is some relief and if
it did not take place the symptoms would
be aggravated and the various complications
by far more frequent. altho it may produce
some relief yet it does not produce the
symptoms of relief which such an event gen
rally does in some other diseases. The tongue
is generally moist. To this there may be an occa
sional exception and is coated with a white fur
but if there be any bilious derangement it
becomes of a yellowish hue. There is headache
the whole circulatory system acts with incr
eased activity. The bowels are generally constipat
ed and this we might say is universally the
case. at times they are very obstinate. not willing

To act under proper remedies and often give us no little Trouble. The Urine is scanty Turbid of high specific gravity very Acid and consisting of a variable Composition but generally containing an excess of the Urates. but above all the symptoms present in Rheumatic Fever and perhaps the only one of which we have any conception the few is the Metastasis. This remarkable feature of the disease especially Manifests itself in the different joints of the body the disease may at first settle upon the Ankle joint then the Elbow then the Knee next the Wrist and now back again from whence it started. The complaint being Truly of a jumping character. at times its course may be more regular than this but Metastasis is not always To the joints and when such is the case we watch with the greatest interests for the serious complications which it may cause. often the disease runs its course without any complications often also does it cause

Those of the greatest danger. Various organs may become affected few are exempt. and very fortunate is it for both Physician and patient that the Brain or its membranes are seldom affected. such a complication is comparatively rare. the organ that it chooses more commonly is the heart or rather its investing and lining membranes causing Endocarditis and Pericarditis such complications are to be feared and call for the most careful attention. the symptoms attending such a complication are palpitation pain with oppression in the region of the Heart Embarrassed respiration especially upon motion as in changing position. these symptoms not unfrequently are accompanied with a slight cough. but percussion and auscultation may develope further symptoms which to consider at the present time would lead to diseases of the Heart. still further complications may arise the Pleura may in its turn become affected like the Pleura the Diaphragm may

be attacked. in short Metastasis may be To almost any spot of the body. when uncomplicated the disease is over but commonly lasting from Twelve to sixteen days or it may be longer. but be the duration as it may. when recovery does Take place. if we may call it recovery if the case has been a complicated one. one in which the Heart has been affected the patient is apt To have future Troubles. and I fully believe that the great majority of Neuralgic affections as they are called are the result or it might be better To say arise from the Rheumatic diathesis and are called neuralgia simply for the want of a better name. its complications then are To be dreaded. for the future bad health which usually follows. and for this reason we cannot watch To closely the progress of the disease. and Stop it if possible by proper remedies. from its complications. for aside from such Rheumatic fever as a general rule is not considered a dangerous disease. yet We are not To suppose that because such is sometimes

The case it is always so. When speaking of the pathology of this disease it was said to be considered by some as nothing more than ordinary inflimation whose tendancy it was to manifest itself in the fibrous tissue. not in the fibrous tissue alone for other tissues are also affected. an attempt has been made by some says Dr Todd to mark out the distinction between the fibrous and synovial but no such distinction can be made from the fact that synovial membranes can never be affected alone. such may be the case and a limited observer than perhaps no right to dispute it but I think there are symptoms which may lead us to mark out some difference between the two. as in the fibrous there is a disposition of the inflimation if it be inflimation to shift by metastasis. which is not characteristic of the synovial. the character of the fever in the two forms is different. in the fibrous it is sthenic while in the synovial it is not so much so yet it is not

asthenic so also in the fibrous the local affection is one part and the fever another while in the synovial the fever is symptomatic. the swelling in the synovial form is much greater than in the fibrous the metastasis to the heart far exceeds the synovial while the latter assume subacute form

Causes.

The causes of Rheumatic Fever are well known and may be divided into two classes those predisposing and those exciting and first those Predisposing. any cause whereby the excretions and the process of assimilation are disturbed just in such proportion is the subject more liable to an attack and upon inquiring of the different cases with which we may chance to meet the exceptions are few where we do not find that for some time previous to the attack the stomach and liver have not performed their proper functions hence the process of assimilation is imperfectly discharged by such the excretions titions matter

change the condition of the blood. Thus directly affecting the circulatory fluid and giving rise to a morbid state of the secretions which may determine its various complications it has been said and perhaps very truly that without the predisposing cause Rheumatic Fever would never occur this might be said of almost any disease. still at times we are unable to find out such causes either because the patient refuses to tell or we fail to diagnose the symptoms. some widespread Rheumatism consider the sex to have some influence. some considering females more predisposed than males but if there be any difference I should say that males were more often affected. being more exposed to the exciting causes. causes which may perhaps have more influence than its predisposing.

Age has but little influence as a predisposing cause. the greatest number of cases met with are between the ages of fourteen and thirty five. and it seems from statistics the younger the

patient The more frequent are its various com
plications with such pre existing causes as
already mentioned it would seem that the
patient could hardly be placed in a better
condition for an attack unless it be to some
of the exciting causes must to be mentioned.
The exciting causes of Rheumatic Fever are as well
known as its predisposing. says Dr Watson
I know of no other Exciting Cause than Expo
sure to Cold. Cold may be said to be the most
influential but still more influential is it
when combined with moisture and this influ
ence connected with insufficient and impro
per food Exposure of certain parts of the
body especially the feet going with the feet
wet wearing wet clothes sleeping in cold damp
places. an influence as great as any that
could is Exposure to Currents of Cold and Moist
air as for Example in Crowded Houses being
Exposed to a current of Cold Moist air on sit
ting or standing near an open Window and Espe ci
ally if in a state of perspiration when from such

exposure the perspiration is suddenly suppressed. not only checking the elimination through the skin. but extending its influence to other organs whose office is excretion. thus retaining the waste matter and causing its accumulation in the vital fluid. cold then the most common cause of various complaints and especially of internal inflimations is the great exciting cause of Rheumatic fever but this disease is not an exception for a great number of diseases acknowledge cold as the chief if not the only exciting cause.

Diagnosis

Having considered the symptoms and causes of Rheumatic fever it may not be out of place here to consider its diagnosis. this is one disease above all others with which this may be confounded. and that is Gout. and the physicians are few who after seeing a case of each will mistake in their diagnosis one for the other. as a few of the diagnostic signs we may observe the age at which the two are apt to appear the young

are very rarely attacked with Gout. while
Rheumatic Fever is not uncommon to them
the female as well as the Male are often attac
ked with this disease. but seldom with Gout.
the parts selected by each are in a great ma
jority of cases different. Gout more common
ly selecting the smaller joints. the other choo
sing the larger ones. the acute symptoms of
Gout are shorter than in this disease. we
often speak of a fit of Gout. the part effect
ed presents a well marked difference. the swe
lling in Gout is much more rapid of a bright
red color and exquisitely tender to the touch
perhaps more so than in any other disease
the causes are said by some to be different
in Gout it is said to be due to high living
while those subject to attacks of Rheumatic
Fever is from want of proper nourishment hen
ce the reason for the two occurring in different
clases of people. the one Gout in the rich the
other in the poor. yet I think it has but
little influence from the fact that the

rule does not always hold good. altho differing from Sydenhams opinion I think one may be called as respectable a disease as the other. the diagnosis then of Rheumatic Fever may be said to be easy much more so than what remains to be considerd especially when men of equal good judgement and experience differ so widely. I allude to its treatment

Treatment

The Treatment of Rheumatic Fever is purely empirical being directed at times to oppose some supposed inflimation at another to relieve the pain not unfrequently giving specifics and looking for some change in the constitution however brought about we know not. there is perhaps no other disease where such a variety of remedies are used. almost every physician has his favorite plan of conducting a case. still at times his favorite remedies may disappoint him. and he may be persuaded quite strongly to think the six weeks treatment is the best if not the surest

Much more is a judicious Treatment To be pre
ferred. and those who believe in such are I
Trust very few. the Effects of special remedies
To often fail To give relief. and it must be ack
nowledge that no specific has ever yet been
found. and that such so far as we are acqu
ainted with the disease and its remedies is
likely To be True. if then there are no speci
fics what is To be done. from the symptoms
already mentioned Bleeding would seem indis
pensable. yet at the present Time seldom Empl
oyed. this may be accounted for in part from
the fact that the patients are not seen early
Enough and when seen we fail to discover those
symptoms which call for it. its propriety
with proper subjects. those of unimpaired vigor
and plethoric habit we cannot doubt. yet the
Times in which we would employ venaesection
are few and far between. by many of the Dublin
Physicians it is Treated wholly as a nervous dis
ease and opium relied upon alone To cure the
disease. where pain is so prominent a symptom

its use is proper and often indispensable. of
the amount to be given we are to be guided by
each individual case. it may be given in one
grain doses at short intervals until the pain
is mitigated. not only does it relieve the pain
but aids nature's effort to get rid of the disease
by inducing to produce perspiration and very
effectual is it in this if followed at intervals
from four to five hours by the Pulvis Ipecacuanhae
Compositus. using in this combination the
nitrate for the sulphate of Potash. not in using
opium so freely we are to watch closely its effect.
yet if it be united in alone it will require to
be given in larger doses, than when combined
with other remedies. emetics are seldom needed.
but the Antimonii et Potassae Tartras may be ap
propriate. in the commencement of a case.
especially if there be derangement of the Stom
ach caused by the presence of offending matters.
The Bowels which are in almost every case
constipated must be relieved. and the Hydra
rgyri Chloridum Mite will generally do this. repe

cally when followed by some of the saline pur-
gatives. it answers a double purpose adding
the bowels of foul matter. and exciting the
secretions acting against the Materia Morbi
existing in the system to produce the dise-
ase. the dose will vary but commonly may be
given in doses from five to fifteen grains like
opium it must be given according to the
circumstances of each case. and it is often
a good plan to combine it with this. for
the purpose of having it produce full ef-
fect upon the intestinal and biliary secretions
which effect is so important in producing
a cure of the disease. there is one remedy con-
sidered by many as a specific and that is
colchicum Autumnale Twenty five drops of the
Vinum colchici given once in six hours or acco-
rding to the gravity of the case. will in many
cases vanish the disease. with some it may
produce prostration. with others nausea and
vomiting. but in a majority of cases it may be
used without such effects even when it does it

is often beneficial and Dr Jackson Truly said
melts the disease away. The Excretions both by
the Skin and Kidneys suggest the propriety
of an Alkaline Treatment. Almost every practit
ioner choosing his favorite drug some
believing in the Efficacy of the Acetate of
Potass some in the Bi Carbonate others in the
Nitrate, now when men Equally Eminent in
the profession differ so widely what is left
for the young physician to think he
would I think choose that Treatment which
combines the whole especially if he has had
occasions to witness its good Effect. This will
be found in the excellent combination of
Dr Fuller in the Efficacy of which I place
the greatest confidence consisting as it
does of the Rochelle salts Wine of Colchicum
and Antimony and Tinct Opii given every
three or four hours Viz Sodae et Potass Tartrat
zij Vinum Colchici gtts XV. Vinum Antimonii gtts XX
Tinct Opii gtts XV this will in almost every
case produce the happiest Effects of its use

we are to be guided upon generall principals not forgetting the state of the secretions. amount of pain state of the pulse and of the fever. With these the age and generall condition of the patient. When Cardiac symptoms as those already mentioned present themselves. we are to make use of strong remedies. the Colchicum may be continued leeches may be applied over the region of the heart. at the same time we may make free use of Mercury placing the system as soon as possable under its influence. Blisters are also very effectual when the disease has a tendency to internal organs. some place but little confidence in external applications in Rheumatic Fever to afford relief. but they are certainly beneficial at times. a warm solution of the Nitrate of Potass Tinct Opii and Water I consider the best which may be used of the following strength Nitrate Potass ℥ß. Tinct Opii ℥i bijne Fluentis off a flannel soaked in this and applied to the affected part. as hot as

it can conveniently be borne enveloping the whole with oil silk will in a majority of cases afford relief of all the different remedies lauded by different ones I do not propose to mentioned and have stated only those which a somewhat limited experience has lead me to believe would conduct a patient safely through an attack of Rheumatic Fever

Dissertation
on
Scarlatina

By
Frank Gallagher
of New Haven, Conn.

Scarlatina

This disease was first noticed by Ingrassias, who published a book describing it in the year 1552, but was for a long time confounded with measles, until Dr Withering, a British physician, clearly pointed out the disease and placed it in the class, which it now occupies as one of the Exanthemata.

It is a contagious febrile disease attended with a sore throat and a peculiar rash. seldom appearing more than once in the same individual and is almost exclusively a disease of childhood. Mr Farre makes the report that in 2614 cases, 2419 were children 182 adults and 13 aged persons.

Its mortality when compared with

other contagious fevers is worth note. Dr. Copland states that from 1838 to 1848 20.962 died of Scarlatina, 14.632 of measles and 13.079 of Small-pox.

This disease is marked by inflammation of the fauces and also by the scarlet rash which usually begins on the second day sometimes however not until the fourth day. terminating in desquamation on the sixth or seventh.

There seems to be two distinct forms of this disease in which it may show itself. One is when the whole force of the disease is concentrated in the throat, while in the other the disease tends outwards spending its force on the skin principally and neighboring parts, both of these varieties may occur in a single case or only one may present itself.

This fact has led some nosologists to class — them as two distinct complaints, under

the heads of Cynanche Maligna and of Scarlatina.

For convenience of description most authors have adopted these three divisions Scarlatina Simplex — Anginosa. - Maligna Before describing these different forms of Scarlatina, it may be well to mention some of the causes from which it may originate, these are — contagion or infection brought about in the same general way as other exanthematous diseases a cold and damp atmosphere, a previous debilitated state of the system may be predisposing causes. Epidemics of this disease seem to be determined in a great measure by an increase of population which has not previously been affected by it and consequently are more liable to it

The favorable season for this epidemic is in the Autumn after a warm summer especially if the heat has been accompanied by abundant rains, although

cases often occur during the winter and spring.

The character of the Epidemic is different at different seasons and localities as is the case with other Epidemic diseases sometimes mild in its character needing little or no treatment but at other times its attacks are so severe as to baffle in a great measure the skill of the Physician and resist our most potent remedies - it comes sometimes "as a wolf in sheep's cloth-ing, deluding us into the pleasant fallacy that the case is proceeding to a favourable termination, when suddenly like the hunted wolf it turns upon us in a moment - destroying our fond hopes and patient".

Scarlatina Simplex. This as its name implies is the mildest form of the disease it may be described as a fever attended by a florid rash, coming out on the second day - The throat in this variety is nearly free from pain and inflammation - —

Scarlatina Anginosa. In this variety the throat presents the prominent seat of disease the other symptoms remaining the same or are present in greater strength. There is always more or less stiffness of the jaws with soreness of throat with deglutition difficult and painful, these signs progress with the disease. The eyes become red and suffused but not watery as in measles - sometimes - frequently Coryza - Epistaxis and cough with deep low voice are present.

The fauces and surrounding parts on examination are found to be red and swollen or more often covered with a dirty yellowish white membrane which can be scraped off leaving the parts underneath red and raw, — this membrane is thought by some to extend into the air passages giving rise to Pseudo - membranous Croupy symptoms

The rash in this form (of Scarlatina) is somewhat late in its —

appearance and less genial in extent than in the simple variety. sometimes confined to the hand and forearm or scattered here and there over the trunk of the body in patches.

At times the efflorescence remaining for a day suddenly recedes reappearing after a day or two, accompanying the internal disease, there will be swelling of the Parotid and sub-maxillary glands - sometimes other glands are effected but those above mentioned are most subject to it - It was thought at one time that the inflammation of the glands caused the part inflamed, but it is now known that the Cellular tissue and lymphatics are the seat of the trouble.

The tumefaction will often be so great as to prevent the opening of the mouth to any extent - and the swelling of the nares will cause the patient to breathe entirely

through the mouth - producing as a consequence dryness of the tongue and lips - from which cause they will often crack and become very painful. From the fauces and neighboring parts is secreted a viscid mucus, which from the difficulty of deglutition is retained in the mouth, giving to the breath a foul and offensive odour. This discharge is not present during the early stage of the disease. There is also a discharge of acrid fluid from the mucous membrane of the nose which excoriates its orifices and upper lip, the same fluid passing into the stomach is thought by some to produce the diarrhoea which sets in towards the close of the disease.

The crusts which are formed on the fauces are either absorbed or seperate spontaneously - leaving the parts red and often excavated. The fading of the rash begins later than in the simple variety. the sorethroat and fever often continuing after desquamation begins towards the close of this disease the fever may assume

a typhoid character.

I now come to speak of Scarlatina maligna vel Cynanche Maligna, which is as its name implies the worst form of the disease.

A peculiar feature of this variety of Scarlatina is its extreme prostrating effects. Either of the other varieties may assume this type. The sore-throat is not a necessary concomitant though generally present.

Occasionally during an Epidemic - Cases are met with in which this variety will set in with comatose symptoms - or those of anxiety and apprehension. Muscular power is taken away - pulse is small rapid and irregular, face pale or livid, the skin hot or more frequently hot at one part and cold at another. The eruption does not appear to any extent a few specks may appear but do not usually remain long - Where the symptoms are as just discribed the cases will most usually terminate fatally by the third day - the

patient will often sink at this early period with perhaps very little affection of the throat and skin if however a febrile reaction takes place it may be of a low typhoid character accompanied by petechiae and vibices also passive hemorrhages which if not speedily relieved will cause death from exhaustion or debility.

Under the head of Scarlatina - Nosologists have classed another disease which is called Scarlatina sine eruptio - being simply a sore throat - It is true that during Epidemics cases do occur with fever and sore throat - but without the eruption - this disease is said to be capable of imparting true Scarlet fever - sometimes also itching and desquamation may take place at the proper time -

I will next speak of the Sequelae of this most formidable disease,

Children who have suffered a severe attack are liable to fall into a permanent state of bad health - and to become a prey to many chronic forms of Scrofula

boils, Strumous ulcers, diseases of the scalp, sores behind the ears, chronic inflammation of the eyes and eye-lids, scrofulous swellings of the cervical glands, the parotid gland is often the seat of an abcess,

The ear is often the seat of inflammation and suppuration, the eustachian tube may be closed and the membrana tympani ruptured and the patient left with imperfect hearing, I have noticed in several cases a swelling of the larger joints resembling in appearance and description given by the patients sub-acute rheumatism, the knee and ankle joints are the most commonly the ones attacked — and sometimes become stiff and even anchylosed by this cause,

Dropsy is the most common form of a sequel of Scarlatina, It is frequently brought on by a premature exposure to cold, It seems to have no relation to the danger and violence of

the disease. but on the other hand follows usually the milder forms of the disease, this fact I believe is chiefly owing to the circumstance that less care is taken as well as less caution during the period of desquamation and convalescence than is taken in the severer forms - which period is more dangerous in the mild cases than any other, in the graver cases of Scarlatina where convalescence is slower and more doubtful cases exposure to cold is more guarded against while in the slighter forms of the disease patients are apt to go out while the new cuticle is forming - Others have attributed the dropsy to an effort of nature striving to throw off the poison from the skin not fully elaborated by the febrile movement. which ever is the true solution of the problem - it is sufficient to know that it is necessary always in order to prevent anasarca to guard the patient from cold and moisture.

Drs. Wood and Scott Alison have mentioned pericarditis as a sequelae of

Scarlatina of not unfrequent occurence.

Dr Watson

ascribes both the articular and Cardiac affections whether they occur separately or together to one and the same cause — namely - to the retention in the blood of a poisonous element by the defect of the principal emunctories — and especially of the kidneys. Often the urine becomes bloody and albuminous caused by the extended congestion and stimulation of the kidneys, which are used largely in carrying off the morbid matter in the blood, this trouble has sometimes been confounded with Brights disease, but it is not the same for in the disease first described by Dr Bright, the tubular uriniferae are stopped up by epithelial scales which are formed with wonderful rapidity, there is also a peculiar degeneration unattended by any inflammatory action, containing granular matter and oil globules - these crumble down and are

washed by the aqueous portion of the urine, while in the urinary disease met with as a sequel of Scarlet fever - the Malphigian bodies or tufts are the seat of the trouble - these becoming congested - burst - and are ever afterward useless leaving the sound healthy one to perform additional duty. The urine should always be tested for albumen both with heat and nitric acid - it should be examined also by the microscope, for in this way alone, can you detect blood and diagnose the true character of the disease.

The diagnostic characteristics of this disease are the acute inflammation of the throat and fauces and the early appearance of the eruption and its bright scarlet color. There is one disease which may be confounded with Scarlatina I allude to Measles. the peculiar diagnostic marks between the two are these - in Measles, there is always present catarrhal symptoms, such as sneezing, cough, and a copious secretion from the mouth and nose - the rash is

always preceded by these symptoms, there is also an absence of the signs of inflammation and ulceration in the throat, which in a severe case of Scarlet fever is always present- the eruption in measles is more elevated and of a darker hue resembling the color of the raspberry, and formed in clusters resembling the shape of the horse-shoe with patches of healthy skin between, In Scarlet fever the eruption is more universal and of a lighter hue- in color very like a boiled lobster and appearing on the second day- Whereas in Measles it seldom appears before the fourth day,

The prognosis of Scarlatina is unfavorable in a direct ratio to the character of the epidemic - under all circumstances the prognosis should be a guarded one and given with more caution than in most other forms of disease - for while the disease may seem to all appearances to be assuming a mild and safe character - it will often suddenly direct its force to some organ or set of organs - which may

cause the patient to sink rapidly,

Often too after the patient has recovered from the fever, he may be worn out by a long train of sequelae.

In some families, there is a peculiar tendency, on it to assume a violent and fatal form hence of course the prognosis could be unfavorable,

Women it is thought by some bear better this disease than men, - Except during the period of pregnancy and the puerperal state when it is very fatal to them, -

A prognosis will vary much with the type of the epidemic - and also with the character of the individual case.

Treatment. In the simple form, says Sydenham, it is only fatal through the officiousness of the Doctor - It requires no treatment beyond confinement to the house warm clothing, clean diet and attention to the bowels - Perhaps there is no one thing which can be done in Scarlatina which will contribute more to the comfort and

restoration to health of the patient, than a plentiful supply of fresh air, Among the wealthy, who live in large houses this is easily accomplished by carrying the patient from one room to another - being careful that the temperature of the room is not lower than the one previously occupied - Among the poor where this cannot be done, the patient should be well wrapped up in blankets and the doors and windows opened - allowing the diseased atmosphere to be swept away - leaving in its place a pure and wholesome one - this will often produce an immediate and permanent change for the better.

In Scarlatina Anginosa - the treatment will often be very much the same as in many cases of continued fever - Cold and tepid Spongings if there is great heat of the skin is both beneficial and refreshing to the patient - Emetics of ipecac, may be given where the tongue is coated and where irritability

and nausea of the stomach exist, Acidity of the stomach can be corrected by an alkali such as lime-water - chalk or Magnesia - When there is severe delirium - shaving the scalp and the application of cold lotions - would be proper and beneficial, also the cautious administration of Aperients when the bowels are confined - always being careful not to purge the patient too freely - lest he be worn out by the drain upon the System,

In regard to blood-letting in this disease I am inclined to think that it is not only doubtful as regards its efficacy but also hazardous in a majority of cases - If however there is considerable delirium attended with hot skin and hard and strong pulse and the patient is not relieved by cold applications to the head - I should recommend leeches to be applied behind the ears - rather than to the temples - for this reason - in this form of the disorder - the tonsils are swelled and inflamed

and there is very little doubt that the head symptoms are occasioned by the disturbance of the cerebral circulation - produced by the tumefaction around the great veins that return the blood from the head - by applying leeches then behind the ears you will have the advantage of removing the blood from near the seat of the trouble and at same time relieve the head symptoms than you would if applied to the temples, - Saline medicines will be grateful and cooling, A favorite medicine with many practitioners is the Chlorate Potassae - and is often given in this way take a ℥j of the Chlorate of Potass. and dissolve it in a ♈j of Lemonade and allowing the patient to drink the whole of it in the course of twenty-four hours, this mixture is not only agreeable to the patient acting as a refrigerant but also removes from the throat all sloughs and foul secretions and corrects the fetor which is usually very offensive,

If the pulse becomes feeble - good beef tea; port wine and ammonia may

be beneficially ordered, Nervous symptoms in connection with those of debility - should be combated by the use of Valerian musk, assa=fœtida or camphor.

In Scarlatina Maligna, all our efforts will too often be vain - We have here two great sources of danger - the first arising from the first impression of the contagious poison upon the body & nervous system - a shock often so overwhelming in its force to the vital powers that unless we support them by the free use of brandy & wine or ammonia and bark that we will frequently fail altogether. If the patient survive the first source of danger - we have another which arises from the gangrenous ulceration which attacks the throat and fauces - the system has been said to be reinoculated from the throat - We must here also give wine and quinine freely, - the free local application of the nitrate of silver and the employment of gargles where the patients are old enough to use them properly will be of great surface - when children are unable

to gargle - the fluid may be injected into the nostrils or applied to the throat with a camels hair brush, the effect of these gargles is always beneficial and encouraging - they seem to make the respiration easier, which is frequently laboured on account of the blocking up of the throat by these sloughs - but are removed by the gargles - In this case the Chlorate of Potass. may be given the same as mentioned when treating the anginose variety

Chlorine itself has been spoken of as a most valuable remedy in the severe forms of Scarlet fever, - Blisters when applied early to the neck and throat are said to modify very much the affection of the fauces -

Sucking ice or calfs-foot jelly will often give temporary relief, at least.

During the convalescing period you must take great care that your patient is not exposed to a cold or moist atmosphere - until after the period for the

dropsical symptoms to show themselves, very often it is through carelessness or imprudence that these symptoms are brought on, When dropsical symptoms do occur, if they are slight they may be removed by purgatives digitalis, diaphoretic remedies - and the warm bath repeated every night, - Elaterium is spoken of very highly as a remedy for the removal of dropsy following scarlet fever - but it should be given early in the disease and before the patient is very weak, Its effects should be carefully watched - as the severe purging and vomiting which it induces often may give rise to great exhaustion, - It may be given to children ten years of age in doses of a sixth to a twelfth of a grain - repeating it every two hours until its action is freely manifested, on the following day some preparation of iron should be given, the diet generous - The treatment of the renal diseases should not be with stim-

-ulating diuretics but with mild drinks careful diet and some of the mineral acids, these may be followed after a while with some of the mild astringents.

You may often accomplish good results by producing a tendency to diaphoresis - I have already spoken of the warm bath as a means of producing diaphoresis - there is also another method worthy of mention which may be employed - I mean that of placing the patient in bed which must be warm and then throwing heated air under the bed clothes and at the same time administering a mild diaphoretic, such as a solution of Ipecac, in [illegible]

Belladona is thought by some to be of great service or value as a prophylactic. Its wonderful power as a preventive and protecting influence against the contagion of Scarlet fever have been and are still loudly

noised by the deluded followers of Hahnemann

I never have except in a single instance had opportunity of witnessing the result of this medicine when given as a prophylactic in that instance the preventive properties so much boasted of by the Homoeopathic practitioners failed to produce the sought for effect the patient was followed by a severe attack of the fever - and was afterwards harassed by a long train of distressful sequelae.

In Scarlatina

like some other diseases, our remedies will often be of little avail - and often a remedy which suits one case will altogether fail in another, thus the rule which should be followed in treating this and all diseases - is, to carefully examine the state which exists and when the mind is made up and satisfied as regards the whole nature of the disorder - apply such remedies as will restore the parts to their normal condition.

Frank Gallagher.

New Haven

A Thesis upon Stone in the Bladder

Augustus H. Harnecky
July 26th 1864.

Stone in Bladder

The stones found in the bladder are concrete earthy deposits made from the urine, depending either upon disease of the organ itself or an abnormal condition of the urine resulting from remote causes.

Varieties. Uric are quite a number of different varieties of stone. The principal are the Lithic, Phosphatic, and Mulberry. The Lithic acid calculi are oval, generally laminated and of a mahogany color. They are composed of lamina concentrically arranged. This may be dissolved by boiling in Liquor Potassa. Muriate of ammonia rarely forms a calculus as it is partialy soluble in the urine. Phosphate of lime are rare. soluble in citric and muriatic acid. Triple phosphate of magnesia and Ammonia is a pale grayish colored calculi. composed of crystals. The mulberry calculus is oxalate of lime. it is red rough and tuberculated

this is not dissolved in Liquor Potassa but is soluble in nitric acid. Often stones are composed of alternate layers of lithic acid oxalate of lime. Sometimes the outer layers are composed of phosphate and the center lithic [illegible]. The number of calculi in the bladder varies, in a large majority of cases only one is found, but cases occur where several are found. One case is stated where there were upwards of a thousand, varying in size from a shot up. Sometimes renal calculi adhere to each other and form one large concretion. The size of the calculi vary, they may be of the size of a small shot or they may be of very large size. [illegible] weighed nearly three pounds. The usual size is from one to two inches in the longest diameter narrow and flattened. The weight may vary from three [illegible] ounces occasionaly from that up to six ounces and from this may [illegible] to several pounds. The large calculi [illegible]

generally the phosphates. The consistence varies
The hardest are the oxalate of lime. the
lithates next and the phosphates are comparatively soft. In shape there is also great
variety. the greater number are of an ovoid
figure. The phosphatic present the most
irregularities most commonly they are ovoid
but branched or of an hour glass forme.
Calculi generally lie loose in the bladder
but they may be encysted in some one
of the folds or be fixed in and embraced
by one of the rectus or affixed to prostate
gland. The calculous matter instead of
being collected into a distinct concretion
is sometimes spread out in the form of
a layer upon the bas fond of the bladder.
Now and then it forms around a spongy or
erectile tumor of this organ. When it passes to
this arrangement it can be felt through the
rectum. As the calculi is generally loose
within the cavity of the bladder they are
constantly changing their position. at one

moment they may be at the neck of the bladder at the next at the bas fond soon after it may be at the sides or in any other portion of the viscus. The most common position is at the bas fond from the fact that this is the most dependent portion. In old subjects affected with enlargement of the prostate the concretion generally lies just behind this body in pouch or cul de sac. When this is the case and the calculus is large it may often be easily felt by the finger in the rectum. When the bladder is perfectly sound the concretion when the patient is in the erect position and the urine evacuated rests against the neck of the bladder and sometimes projects into the orifice of the urethra. Causes. The causes are somewhat obscure. In the different varieties of calculi age exerts a considerable influence although it may occur at any period of life it is most frequent, seems to the age of twenty and next in frequency

it is found in advanced life. Climate is said to exert an influence in the production of stone being more common in cold and temperate regions than in tropical countries. Sex also exerts an influence being far more frequent in the male than the female. The poor it would seem are more liable to stone on account of the derangement of the digestive organs caused by the use of unwholesome and irregular diet & want of cleanliness and intemperance. All sorts of food which create acidity exert an unfavorable influence upon the urine, its quality seems to undergo a change and the deposition of earthy matter is facilitated. A morbid state of the blood may also be assigned as a cause, for in this condition of the circulation does not favor the secretion of healthy urine. Various diseases such as stricture of the urethra and disease of the prostate and also organic disease of the bladder,

ureters and kidneys facilitate as well as give rise to this complaint. Gout and rheumatism are predisposing to the formation of uric acid calculi.

Most calculi have a nucleus around which the earthy matter collects. This nucleus may be any substance which may be either generated in the urine or introduced from without. In general it is the urine oxalate of lime. Magnesia. Mucus. Lymph. a clot of blood may even form the nucleus of a future calculus. Bullets have been occasionally the nucleus. A catheter breaking and a portion remaining in the bladder most frequently is the foundation of the stone.

Symptoms. The symptoms vary according as the calculus exists loose in the bladder or when it has become encysted. They vary also according to the size of the stone and the condition of the parts

of the bladder. If the stone is of large size we have more severe symptoms than would be found if the calculus was of small size. Rough stones give stronger symptoms of their presence owing to the existence of inflamation caused by them which which inflamation must necessarily exert an unfavorable influence on the bladder and the consequent sympathetic influence which the disease produces on the system generally. The symptoms of stone are divided into the rational and the physical. The physical signs are those which determine its existence by means of sealing it with the sound. The rational signs are pain in making water particularly when the last drops are being ejected this pain is felt in the bladder and adjacent parts. Also frequent desire to pass the water, & sense of weight about the anus and pelvis. Interruption of the stream of

urine. Pain and itching of the glans penis in conjunction with the other symptoms is a valuable sign. Increase of the size of the penis with frequent erections of the organ. Increase [illegible] of the bladder, bloody urine, and great pain on any movement of the body, by which the stone is moved from one part of the bladder to another. When the flow of the stream of urine is interrupted it is caused by the stone blocking up the orifice of the urethra, if the patient lies upon his back the position of the stone is changed and the stream of urine again flows uninterruptedly. Prolapsus of the urine [illegible] takes place owing to the constant stirring and irritation caused by the foreign body in the bladder. When the stone is encysted many of these symptoms are absent, for instance the pain when the stone is transferred from one part to another, the urine is seldom bloody

but there is still weight and pain and frequent desire to micturate caused by the irritation of the stone. These symptoms are usually a long time coming on before we are led to believe the truth of the patients situation. now the health is good and the bladder apparently sound.

Diagnosis. The principal manner of determining the presence of a stone is by the use of the sound. an instrument which may be either hollow or solid. the best however are the solid ones. the sound for an adult should be from ten to twelve inches in length well polished and made of steel and of moderate diameter as it can be then moved about in the bladder more readily. the point of the sound should be rounded so as not to become entangled in the folds of the bladder during examination. the curve should be about one quarter the length of the instrument. In order to make a thorough examination the patient

should be placed on his back and the sound well oiled carefully introduced and every part of the bladder explored for the detection of the stone. The bladder should contain urine in order to dilate it during the examination. if there be no urine then tepid water should be thrown in for the purpose. Frequently the stone cannot be detected for it may lie in the bas fond near the Prostate, in this case by introducing the finger into the rectum and then pushing it against the sound. If the calculus is not detected with the patient in recumbent position oftentimes if he assumes an upright position it can be found. The presence of the stone is shown from the sound emitted and the sensation produced. The sound is a metallic click, and the sensation a rough grating one this sensation is not of itself indication of the presence of calculi yet may be caused by a fasciculated state of the walls of the

bladder. Great care must be taken by the surgeon not to prolong the examination for a long period of time as the irritation produced might give rise to severe inflammation of the bladder. The operation should be often repeated until there is no doubt of the existence of the disease. In order to determine the size of the stone various methods are of use. the size may often be determined by the sound. by observing the extent of surface along which the sound passes as it is being withdrawn. The most satisfactory and surest method of determining size is by aid of the Lithotrite which being introduced and grasping the stone gives a more definite idea of the size than could be ascertained simply by the sound. The presence of more than one stone may also be indicated by grasping one stone in the Lithotrite and then moving it about if the click is heard more than once of the existence of more than one. In women

the presence of stone is more easily detected owing to the urethra being so much shorter than the same canal in the male and the readiness with which the stone may be raised by introducing the finger of the hand into the vagina.

Treatment. We have for this disease two forms of treatment. The medical or palliative and the surgical. All we can do as far as the medical treatment is concerned is to pay particular attention to the patient. The diet should be nutritious and easy of digestion. Plain meats and fish and dry vegetables are the best. Coffee, wine and fermented liquors should not be taken. The exception to this is when the patient is habitually accustomed to the use of liquor then he may be allowed gin which is the least harmless of liquors in this affection. Water impregnated with lime should be avoided. Should avoid exposure to cold and should always be

well protected from exposure to wet and damp cold. It should also be borne in mind that sexual intercourse tend to aggravate this disease. If the urine be alkali acids are indicated and vice versa. The best alkalis are soda and potassa. The best acids the nitric and hydrochloric 30 or 40 drops dilute nitric acid three times a day in half tumble water. The medicating to dissolve calculi in the bladder has not been found to be at all successful and it is not recommended in the books. The passage of a stone from the kidney to the bladder is well known from the exquisite pain which it causes and frequently if the stone can pass through the ureters to the bladder by allowing the bladder to become full of urine and then grasping the glans penis and filling the urethra with urine and suddenly letting the stream flow and making all the pressure possible on the bladder by the abdominal muscles

the stone is forced out through the urethra. Stones of small size can be removed through the urethra by grasping them with forceps introduced through it into the bladder. Lithotrity consists of introducing an instrument into the bladder and seizing the stone and crushing it. Various instruments have been devised for the purpose. Before operating in this manner its practibility should be ascertained. Must ascertain the condition of the bladder. There may be simply the irritation which the presence of the stone necessarily causes. On the other hand where the bladder is very sensitive the operation is not to be thought of. for the excitement caused by the introduction of the instruments and also the irritation which might be caused by the fragments of stone when crushed might give rise to a degree of inflamation fatal to the patient. We can form an idea of this condition where the sounding prior to operating

causes great distress and suffering. There may also be a diseased condition of the kidneys and of the urethra and prostate gland in such cases the operation is not for a moment to be thought of. The middle period of life is the most favorable for operating in this manner. The cases where it is most admissable are where the stone is of moderate size and of the softer varieties. There is more liability to the return of this disease after this operation than after the operation of Lithotomy. for the reason that the whole of the crushed mass may not have been removed and fragments which may have been left thus form the nucleus of future calculi. In Lithotomy the whole mass being removed at once. The operation should not be longer than ten minutes. The ill effects are Haemorhage. Retention of urine. Laceration of urethra. Inflamation bladder. Peritonitis and Purulent infection.

Lithotomy. attend to genual health before this opeation. If bladder. Kidneys or Prostate are much diseased should not opeate. Where there exists no such organic trouble and no great preparatory treatment. The bowels should be kept moderately open by mild laxatives. and gruel diet should be observed by patient for several days preceding operation. Natural Operation. The placed should be placed on a table, the hands tied to the ankles so as to bring the parts into the best position, and also to prevent any struggling. The surgeon should provide himself with a sharp and a probe pointed bistoury. a staff. forceps. and scoops. Hot and cold water. Sponges ligatures and a syringe to inject water into the bladder if previously empty. Every thing being ready the anaesthetic agent should be given. one assistant should administer this. another should attend to pulse and a third should be ready

to assist the surgeon. When the patient is fully under influence of the anaesthetic the staff should be introduced into the bladder and the stone should be felt for. failing to detect it the staff should be withdrawn and the sound substituted if still failing to find it the operation should be defered as it should never be performed where the stone cannot be found previous to operating. The bladder should be partially full of fluid. if urine naturally is not present tepid water should be injected by the syringe. Having found the stone the patients buttocks should be drawn down to the edge of the table. the perinum shaved and the rectum examined to be sure that it is empty. An assistant should draw up the scrotum. The incision should run from the raphe about an inch and a half above the anus and carried downwards and outwards for about three inches and a half. the depth of the

incision should be about an inch. by this incision the Skin superficial fascia and subcutaneous fat are divided. the left index finger should be thrust into the upper part of the incision and the knife by the side of it and the dup cellular substance of the perineum. transverse muscle and some of the fibres of the triangular ligament divided. the membranous portion of the urethra being thus exposed the groove in the staff can be felt at the bottom of the wound. the urethra should be then cut through into the groove and on into the bladder dividing the prostate. the opening into the gland should be as small as can be for the requisite purpose. the urine gushes out as soon as the bladder is perforated. this rush of urine frequently brings the stone opposite the incision. if this does not happen the finger should be thrust into the

bladder and the stone sought for.
As soon as the stone is found introduce
the forceps and grasp it. be very careful
not to entangle the fold of the mucus
membrane in the forceps. If the stone is
small it may be removed by the
scoop. Afterwards the bladder should
be washed out. If the stone has been
broken be sure all fragments are
removed. For a few days the urine
will run off by the wound but as soon
as the edges of the wound become swollen
this passage is thus stopped up and the
urine passes off by urethra. The treatment
after the operation should be strictly
antiphlogistic. patient kept in recumbent
posture. and undue excitement avoided
Pain soothed by narcotics. Diet mild.
The bowels should be shut up for a few
days as the pressure caused by defaecation
is injurious. The wound seldom heals by first
intention. If is heamorhage ligate if the vessels

Can be got at. if not compression and
styptics. If this is sinking Stimulate. If
retention urine use catheter. May have
infiltration urine into cellular tissue. Gangrenous
urine and sloughing of the parts. The wound
in successful cases heals in from two to
five weeks. There are several other operations
for Stone. The Semi lunar. The Median.
Medio Lateral. Recto Vesical, and
Supra Pubic—

Pneumonitis.

Thesis by

Charles H. Rowe

This disease presents many points which peculiarly recommend it to the attention of the Medical profession.

Its wide geographical prevalence, and its great frequency in all classes of society; particularly in our own country; the meteorological conditions of which seem so favorable to its development, make its study of the utmost importance to the practitioner; while to the student its diagnostic and pathological appearances, under it a field of research of no less importance, & of the deepest interest.

Pneumonitis then is inflammation of the substance or parenchyma of the lung. This it is only necessary to state is composed of an infinite number of lobules; the terminations of the bronchi, subdivided into the air vesicles; all of which are bound together by areolar tissue, in which ramify the blood vessels.

The principal cause of the acute lobar form to which I shall confine my self, is exposure to cold and moisture.

The rationale of the disease may be briefly stated, thus,

Where there is inflammation there is suspension of function. The inflamed lung is no exception to this rule, and throws the burden of oxygenizing the circulating fluid upon its healthy mate; for by a beautiful example of Nature's conservative tendency, this disease is in far the greater number of cases unsymmetrical. With only one active organ therefore, respiratory action is labored, and the blood is imperfectly purified. It is thrown into the brain in this condition, and delirium is awakened; the controlling power of that organ is lost, and the heart's action ceases. Or in another case the functional obstruction is of so great extent that respiration is entirely checked; and apnoea is the fatal termination. Or still further the inflammatory progress may be toward the suppurative state, and fatal lesions of the lung be the consequence.

But by as much as the favorable progressions of the disease are more pleasant to all concerned; are they the more intersting to the student, and worthy of more complete description.

I must now consider the morbid changes of the lung. It is in health an elastic spongy structure, made up of the air cells and their connective tissue.

Inflammation sets in, and from the delicate membrane lining the cells there flows a serous fluid; and from the minute vessels around them, congested as in other inflammations flows blood mingling with the serum, and partially filling the cells.

Now we have the first stage or that of engorgement of the lung. The inflammation goes on and the vesicles are filled with its morbid products, and with lymph its unvarying attendant; the areolar tissue is softened, and we have the second stage or that of Hepatization. As far as receiving air is concerned, this lung is useless; a red liver like mass its vesicular cavities obliterated, lying silent and motionless in the chest.

Now in describing the favorable course of the disease, one of the most wonderful of the reparative processes of Nature demands consideration. This solid swollen mass is to be restored to porous elastic structure, of not half its present weight, and to the full performance of the function which for days has been suspended.

By the process of absorption the morbid ingestion is gradually thrown out of the cells; the infiltrated areolar tissue is relieved of its burden of effete matter;

the regenerated lung again expands to the entering air, and the turbid current of life again bounds through its channels pure; nourishing & invigorating its possessor. Such is the natural course of this most instructive disease. But not the only course. Inflammation may as in other parts end in suppuration; and the hepatized lung may go on to change still further in structure, by a softening process due to the infiltration of purulent matter. Like collections of pus in other localities this may be circumscribed by the wall of an abscess; and when the matter finds exit a cavity may be left. Or the pus may be absorbed with all the evil results of pyaemia.

Having thus described the general course of the disease, it remains to speak of its symptoms; then of the diagnosis from beginning to end by physical exploration; and last of the treatment most proper to be pursued. And first of the symptoms of Pneumonia. The patient is exposed to cold and damp air. The mucous membrane of the nose and fauces becomes inflamed. He is hoarse, and has perhaps a slight cough and difficulty of breathing. In a day or two he experiences

a chill more or less marked, and a pain of peculiar lancinating character in the region of one nipple, and usually the right. This is the stitch in the side; and any attempt at full inspiration, gives rise to a sensation that the lung is being torn from the ribs. The decubitus of the patient as respiration becomes laborious, is on the back or the affected side; and this may aid in diagnosis; for compression impedes natural breathing; and as the patient has now virtually but one lung, he unconsciously gives this its fullest play, by assuming the only position which obviates all pressure upon it. The dyspnoea is generally present from the outset, and as the disease progresses up to the acme of Hepatization keeps pace steadily with it. But with the same extent of disease, it varies in different cases. The patient has at first a dry cough, but soon begins to expectorate a peculiar brown sputum, designated "rusty," and considered pathognomonic of the disease. This sputum is the fluid poured into the air cells, mixed with a small quantity of blood from the congested capillaries. It is tenacious, and gelatiniform; adhering tightly to the side of the receiving vessel;

Not streaked as in Bronchitis, nor pure blood as in Phthisis; but a mass of uniform color. Its extreme viscidity is considered by some diagnostic of the stage of Hepatization. The fluids are so compressed that they are not voided with as much freedom as in the first stage, when the vesicles were but partially full. Inflammation too with its accompanying swelling of tissue is an impediment; and the stagnant matter has time to in some degree consolidate.
As the disease progresses, the matter thrown off may become purulent, and the third stage may be suspected. Or by its consolidation in the small bronchial tubes, the matter may have dammed itself in; and a cessation of expectoration result. The secretion of the morbid product goes on, but it cannot escape; and now we may suspect cavities or abscesses, to be formed in the broken down and absorbed substance of the lung. The pus secreted is not always healthy; Indeed the expectoration at a late period of the disease, of a fluid colored like the juice of Prunes, or of Tobacco, is far more common than that of the ordinary creamy straw colored secretion. This is a less consistent fluid, and can be thrown off with more facility, as it does not readily form barriers for itself.

† A. Flint

As in other extensive inflammations, fever is an attendant symptom; so common as to have given to the disease its popular name Lung Fever. This fever is of a sthenic character, and presents the rapid and strong pulse; a hot and dry skin; throbbing pain in the head; and loss of appetite, with a tongue coated with white or yellowish fur. On venesection the blood is found to buff and cup; and taken in connection with other symptoms, was once considered diagnostic. Delirium is sometimes present, and when attended with increased difficulty of respiration, is a symptom of grave import, awakening suspicion of the perfect oxygenization of the blood. Or the bronchi may be so clogged as to threaten suffocation. Two symptoms, more of physiological and pathological interest, than of utility, are the absence of the chlorides from the Urine at the beginning of the disease; and the pathognomonic coating of the teeth with a red exudation from the gums. These both stand as facts; but we are at a loss to account for their causes, and thus be able to direct remedies which while restoring the normal secretion to the kidneys; or cleansing the stained teeth, shall at the same time fulfil the great object of all Therapeutics; of ameliorating suffering and saving life.

I now come to speak of modes of diagnosis of comparatively recent introduction; those of Percussion and Auscultation. The percussed chest yields a sound in the first stage a trifle duller than natural. As the second stage progresses, increased, and at last complete dullness is perceived; returning to the normal resonance as resolution advances. The practised ear can also detect the non-vesicular resonance, in place of that of health. But to Auscultation the most attention is to be given, as its revelations are of a much more extended character. And the detection of adventitious sounds called rales; and distinguishing of what kind these rales are, constitutes skill in this practice. The Bronchial rales, (for these must be considered as well as others peculiar to Pneumonia), are the dry; divided into sibilant and sonorous; and the moist, divided into coarse and fine. But it is in the later stages of Pneumonia that attention is called to Bronchial sounds. In the first stage the half filled air vessels give out the peculiar rale, called crepitant; a very fine bubbling murmur, heard on inspiration, as the partially agglutinated walls of the vesicles are caused to expand. Another variety which is tubular instead of vesicular; (the sub crepitant,) may

be heard at the same time, both on inspiration & expiration. On the sound side where most of the breathing must be done, the natural vesicular sounds are exaggerated. Bronchophony, by which is meant the exaggeration of vocal sounds, by passing through solid media to the ear, must also be noticed. Now what importance is to be attached to all these sounds? In the first place the one crepitant rale is pathognomonic of the disease; showing that inflammation is the disease, and that the lung is the organ attacked. Also while they show us plainly the progress of the disease; they are the means of differential diagnosis. Pneumonia usually begins at the lower lobe of the lung; and when we miss the crepitant rale here, and find it above, we know that the lower lobe is hepatized, and that the middle one is engaged. If we can bound the accompanying dulness by a permanent transverse line above; we know that its cause is not pleuritic effusion; for the surface of liquid must always rest horizontally. When no sounds can be heard except bronchial rales high up; (and the sonorous and sibilant, naturally point out the extent of disease from large tubes to smaller; and the bubbling sounds of the moist rales from the same circumstances indicate the same things;)

and the changed character of the voice is apparent; it is evident that the whole lung is solidified, or so compressed as to be useless. If later still the crepitation returns, we know resolution has begun its work of repair. Or if coarse moist gurglings are heard, the fatal result of purulent infiltration is to be feared. Day by day after the second stage has reached its limit, as life or death is to be the fate, can we perceive the dullness, and labored sounds burst forth into the clear vesicular resonance of health; or grow more obscure, or intense in character, as one or other of the fatal terminations is approached.

It remains to speak of the treatment of Pneumonia. The lancet was formerly considered the controller of inflammation, and in this disease was always used, and often unhappily misused.
But since the doctrine of treating symptoms, and avoiding routine practice has obtained; venesection has been discouraged, and it has become almost a routine not to bleed. But in the plethoric patient of full habit, in the early stage of the disease, experience shows that depletion by the lancet is still of value. The arterialization of the vital fluid

is thrown upon one lung, and if the volume of blood be diminished, this lung can purify the remainder more thoroughly, and the cerebral symptoms so dreaded may be avoided. To assist in this depletion Aperients are of service. Tartarized Antimony (not as an emetic, unless the bronchi are obstructed), but as a sedative, in tolerated doses is of great value. From 1/8 of a grain to two grs may be given every two or three hours. It has been given in immense quantities with asserted success; but probably the smallest amount capable of producing the desired sedation is the best. Opium in free doses is one of the most useful agents; relieving pain, subduing inflammation, procuring rest, and acting almost as an expectorant by counteracting spasmodic action in the diseased locality. In the second stage Mercury has been given, on the theoretical principle that effusion of lymph was prevented thereby. It is yet a mooted question; but mercury has apparently done good in many cases. So the Sub Muriate is given in one a two grain doses, every hour or two, and prevented from escaping by the bowels by Opium. Blisters are also remedial measures, which have their advocates

and opponents. The one class advising a jacket of the vesicating plaster; the other recommending small and repeated rubefactions. Poultices and warm fomentations are of service in the second stage; proving grateful to the patient as they do in other inflamed localities. One threatening symptom must be watched for, and if possible averted. That is when the labored circulation gives evidence by the change of pulse, by sinking and pallor, that the rapidly agitated blood has had the fibrin so to speak, whipped into a clot, which will soon prove a fatal barrier to the vital fluid.

It has been demonstrated by physiologists that blood owes its fluidity to the Ammonia in its composition; and hence in these threatening symptoms Carbonate of Ammonia has been administered in doses of from two to ten grains at intervals of an hour or two or three, with the most happy results. At the same time its gentle, but prompt stimulative action highly recommends it. To check tumultuous action of the Heart, Veratrum Viride has obtained a reputable

place in the Materia Medica applicable to this disease; doing away with the dangerous Digitalis, and limiting the use of the too potent Antimony. There is hardly need of stating that support must be administered as symptoms demand. In the form of concentrated nourishment; as the essence of meats, or Milk: Or of Alcoholic stimulants, and tonics when there is danger from Asthenia.

The Prognosis in Pneumonitis is generally favorable; especially if no organic complications are present. The various tendencies to death must be foreseen and guarded against.

Rarely does the first stage prove fatal; and during the two weeks of the remainder, a careful assistance of Natures efforts, will in the majority of cases be crowned with success.

Charles H. Lowry

A Dissertation upon the Cause. Diagnosis & Treatment of Phthisis Pulmonalis.

By John Sutton Bumstead

July 26th 1867

In the long catalogue of disease there is none more dreaded both by the Physician and Patient than that Scourge of humanity Phthisis Pulmonalis

There is scarcely a disease more intractable. less affected by remedies than this. none other that desolates so many firesides. and brings sorrow to so many hearts. that steals so gently and almost imperceptably upon the unwary victim. For ages it has baffled and defied the efforts of the most skillful Physicians and laid low the beautiful. the gifted and noblest of every clime.

It is not exclusively confined to any certain portion of the earth and attacks alike the high and low, the rich and poor.

It doubtless is a more prolific cause of suffering and death than any other disease

the people that inhabit certain portions of the earth are liable to.

According to Dr Wood it causes one sixth of all the deaths in the northern and middle latitudes. it appears to confine itself more particularly to those regions.

Here in our country its ravages are principally among the people of the eastern states. the farther west we get from the seaboard the less do we see and hear of Phthisis.

In the north west. in Wisconsin. Iowa and Minesota we seldom meet a case of it (except perhaps some unfortunate who has contracted it elsewhere) among the miners. farmers & traders of the far west in Nebraska Kansas and the Rocky Mountain territories the disease is almost entirely unknown. During a residence of several years in those regions in which I had abundant opportunity for observation. I did not witness one single case of Phthisis that originated there. this exemption is

probably owing to the dryness of the atmosphere and salubrity of the climate.

In the very cold regions of the north, the disease seems to be very little known - though cold without doubt is one of the most efficient causes. The probable reason for this exemption is that the people of those regions guard against its injurious effects both by dressing warmly and living in warm habitations - And then, the dryness of the atmosphere in the extreme north is a preventative through its feeble power as a conductor

In the temperate latitudes along the sea-board as in our own New England and the Middle States, where the atmosphere is damp a great portion of the time, and where the climate is variable, the disease prevails to a fearful extent. prevails alike in hill and valley, in crowded cities and in sparsely settled farming districts. These facts would seem to indicate that cold and damp continued act as one of the chief causes of Phthisis,

But the one great predisposing cause of Phthisis is inheritance. The unfortunate descendants of a parent who is tainted with the tuberculous disease are very liable to inherit it, and thus it descends from generation to generation, successfully resisting all attempts to unloose its hold upon the doomed family. Sometime the predicted descendant of a consumptive show no signs, but the taint is surely in the blood and as surely will show itself in their descendants. When once the tuberculous diathesis becomes established in a family it is seldom that it is entirely eradicated. It is said that cold, insufficient diet & wasting indulgences, or in fact anything that has a tendency to produce permanent or long-continued debility, will in many individuals generate the tuberculous diathesis. That may be the fact. I am not prepared to prove to the contrary, but most certainly inheritance is the principle if not the only predisposing cause. We know that any depressing influence will develope tubercles in those who have the diathesis, as

also anything that causes irritation or inflamation of the Lungs It may be the sequel of other diseases such as Pneumonia. Pleurisy Bronchitis. Small Pox, Measles &c

Cold perhaps is the most common, as well as the most powerful of excitants

The inhalation of irritating substances sometimes causes it. though commonly by producing some other disease and through it develop tubercles

Age may be an exciting cause of the disease it is a noticable fact that the largest number of consumptives die between the ages of 25 and 40 years, Dr Wood advances this idea, that at that time of life the power by which the aliment prepared by the processes of digestion and sanguification is appropriated to the growth and repair of the organs. is now diminished, and probably in a greater degree than the two functions intended to supply it with material, The material being in excess is thrown out in a less elaborate condition, and in those of a consumptive constitution takes the form of tubercles,

Let probably has no effect. Though more females are attacked by the disease, doubtless it is owing to their greater delicacy of organization. Sensibility and sedentary habits. They as a general thing, dress less warmly than males and breathe in a less pure atmosphere. Some occupations appear to favor the production of Phthisis, such as those that confine the person to bad positions & impure air, confinement in close rooms &c.

These that I have enumerated are the most common causes of Phthisis.

Diagnosis of Phthisis.

There is in general very little dificulty in diagnosing Phthisis, except in the first stages and then it may be confounded with or mistaken for some other disease, Bronchitis is the disease it most nearly resembles and is most often mistaken for. Phthisis is usually ushered in with a short dry hacking cough attended generally by expectoration of a frothy transparent mucous. In Bronchitis we have a cough and

Expectoration of the same character but commonly accompanied or preceded by hoarseness. In Phthisis the pebrile action is hardly noticable at first but gradually increases. In Bronchitis (if severe at all) there is comonly a more rapid pulse, more cough and a more profuse expectoration

Phthisis is commonly attended with regular pain about the chest or between the shoulders Bronchitis is not. Shortness of breath upon exertion is a symptom of Phthisis but not of Bronchitis. But the most conpincing and reliable of the rational signs is Hæmoptysis. common in Phthisis but never occuring in Bronchitis. If to the signs I have enumerated alone be added the Physical Signs obtained through Auscultation and Percussion, the most certain of which are dulness upon Percussion beneath the clavicle. with perhaps a depression in the part. and any departure from the healthy respiratory sounds the evidence of the existence of tubercles is complete, There are many other signs such as emaciation. Hectic fever. Night sweats these would assist materially in the diagnosis

In the treatment of Phthisis more attention must be paid to Hygiene than to the administration of remedies. Possibly remedies may be administered that will favor the absorption of tubercles. But the great indication is to prevent a further deposition of tubercular matter. By fortifying the system against the predisposition and by removing the exciting cause. We must restore vigor to the poverty stricken system by plenty of good exercise in the pure open atmosphere, regulating the diet, and a mild and careful system of medication.

Regarding exercise a system should be adopted in which the patient should exercise the whole body. a walk. a ride in buggy will not suffice alone. but add to it rowing a good riding horse back or any exercise of the kind that require exertion of all the muscles of the body. it is not well to produce exhaustion by carrying it to excess - but let the exercise be vigorous. The patient need not regard the weather too much. need not be afraid of a

Lowering day or a cold forty morning, but take his accustomed exercise guarding well by dress against the inclemencies of the weather. Of course I would not recommend a patient to expose himself recklessly. He should be careful at all times to keep himself warmly clothed and not wear the same amount of clothing with the Thermometer at 40 above zero that he would 40 below, always clothing himself according to the change in the weather. As the Lungs are peculiarly sensitive it is well to cover them with extra covering, and when exposed to very cold weather it is well for the patient to cover the face with thin cloth or gauze.

In all cases it is well for the patient to seek some other place of residence. The dry high regions of Northern Iowa and Minesota or of the Rocky Mountains are probably among the best. or the high regions of Georgia. Alabama & Tennessee.

Regarding diet. Those articles that are nutritious, and at the same time the least stimulating are the most appropriate. it is

necessary always to guard against those things that will produce febrile action. Ripe fruit, vegetables that are easily digested, light meats, and unless there is inflamatory action the stronger meats may be used. And in all cases the use of fat beef is beneficial. if there should be much inflamatory action in the early stages, it would be well to use no food except that of a farinaceous character. fruits & vegetables and fat beef,

Medicines cannot cure Phthisis. but they are at times indispensable. Where the functions of the body are deranged medicine may be given with good effect. if the patient is weak and feeble. Mild tonics such as gentian quassia &c may be used Cipsissewa and wild cherry bark are highly reccommended: some preparations of iron are used with good effects. The cough may be alevisted by the use of opium or other narcotic. If there be inflamation of the bronchi. Expectorants may be useful. Dyspnea is commonly

a nervous symptom and may be combatted with the nervous sedatives such as valerian, assafedata &c. The pains in the chest are best treated by counter-irritants and narcotics. Hemoptysis may be treated by astringents and counter irritants to the chest. bleeding locally or generally if the patient can bear it. Refrigerant and sedative medicines. Common salt has been found to be very efficient. For the night sweats and Hectic fever many remedies have been used. probably none have been found more efficient than Elixir vitriol. Stimulants are seldom used except in the last stages, when they may be used to great advantage in keeping up the strength of the patient. among the best of these are Carb-Ammonia and Wine. Iodine is said by some to cause the absorption of the tubercles but the proofs of its usefulness except as a tonic are wanting. Cod liver oil has enjoyed a reputation of being almost a specific, and there is no doubt but that it has been of great value as a remedy, very likely

the benefits derived from its use are owing to the fat it contains than to any other property. I should recommend its use for the reason that it is fat, though fat beef would no doubt be as efficacious. I have said but little of remedies for I conceive them to be of the least consequence in the treatment. Vigorous exercise and attention to clothing and diet in my mind being of much the greater importance. I have not endeavored to be original in any of my ideas, for the ground has been so thoroughly canvassed by writers, that I should be unwise to attempt it. I have merely stated the ideas I have received from my teachers and my books.

John D. Brundage

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Thesis

By

John H Tyler

January 1864

Subject

Disease

Disease

I have chosen for my Thesis, disease a subject which might occupy for years minds far surpassing my own and yet afford an exhaustless source for arguments and dissertations. I have chosen it with the full knowledge of my utter incapability of treating the subject as it should be. I have not chosen it with the idea that what I may say will be very interesting to the learned men before me or that I shall disclose any new, wonderful or startling

revelations but rather as the schoolboy who desirous of finding a subject for his composition often takes for the easiest the most difficult one there is. Before I speak directly of disease allow me to say a few words as an introduction. A limit has been placed by the Almighty to both animal and vegetable life. Upon some has He bestowed a longer period of life than upon others. Upon all He has bestowed a period of growth, and then a period of decay. The forest oak which has flourished for centuries is now slowly decaying. Its leaves have been put forth for the last time and its branches are one by one strewing the ground beneath; soon naught will be left but a ragged stump to mark the place where once stood the proud king of the forest. Flowers bloom to day and the air is filled with their fragrance to morrow their petals are scattered far and wide upon the breeze. The brute creation have also their time of life

and of death. Man the most perfect of God's creatures is ushered into the world at first, a rudiment as it were of what is to be, and passes through the various changes of life, increasing in strength, and form, 'till he reaches the very acme of his perfection. Every organ — every system has become fully developed and it seems as though he might bid defiance to the ravages of time But in vain does he resist, for the organs which have attained their growth, and performed their duty, now begin slowly to decline. The eye grows dim; the ear less acute; palsy, seizes the withering arms; and the trembling knees warn him of his fate. Thus he fails year by year 'till at last the links of the golden chain are snapt asunder, and he sinks into the grave a mere wreck of the once mighty frame. In this, we behold the wisdom, and goodness of our Creator, for if there were no end to life, this world would be a place of by far greater misery than it is now, and man

would loathe life as much as now he loves it. Man especially then should be thankful and not murmur because his body perishes while he has the knowledge that his soul can partake of much greater happiness than is bestowed upon the earth.

We may divide man's life into three periods, Childhood, Manhood, and Old-age. We may in safety pass through the two first,— to the last all must succumb. Old age with its wearisome pains, and slow decay, breaks down both the strong and the weak. Few comparatively reach the period we call old age; for there are causes which check life ere it reach its prime. We are fully mindful of the dangers that surround the infant while yet in the womb of its mother— at the time of its birth, and while passing through the perilous period of childhood. We are aware of the dangers that beset the path of man wherever he may go— the many accidents common to him, both on sea and on land"

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We are having in our own land one great cause which is sweeping away men by hundreds daily.- war with its attending horrors is a fearful agent of death; yet there is one still more feared by man, and that is Disease.

The definition given to disease is that it is an opposite state to that of health, consisting in a change, either in the position, and structure of parts, or in the exercise of one, or more of their functions, or in both. Arising under different forms and circumstances, it receives its name, either from the part of the body affected, or from the group of symptoms by which it is characterized. In some of its forms, it appears more often at one period of life than at another, as for example in children, there is a greater tendency to many of the eruptive fevers, as measles, scarlatina; Also we have many diseases which are peculiar to childhood. Sex has much influence over disease, as is shown in the greater disposition there is in the female sex, to those nervous

complaints such as neuralgia, hysteria &c; while owing to the great peculiarity in the structure of certain organs and the functions they perform there are many forms of disease exclusively confined to that sex. Another circumstance exerting influence over disease is climate. We find that yellow fever is the inhabitant of hot climates visiting to be sure the more temperate parts but it is very rarely and only in a season of extraordinary heat. The bilious remittent is also a fever of hot parts though not so strictly confined as the yellow fever. The causes of disease. Watson arranges them under two heads viz: Predisposing and exciting; "the first being that circumstance which acting upon the body brings it to a condition in which it is unusually susceptible of the exciting cause of the particular disease; the last being that which actually produces the disease". The known causes of disease are many and various. Whatever contributes to our comfort or enjoyment may under

changing circumstances become the most active agent of disease and even of death. The atmosphere abound in dangers. Malaria and contagions oftimes fill the air with their poisonous breath. Epidemics rise up suddenly in our midst scattering far and wide the seeds of death. Then we have hereditary diseases, and diseases whose origin is due to some malformation. Our own imprudence and folly are the chief sources of much of the pain we suffer, as excess in eating and drinking; the overworking of body or mind, and the indulgence in the various passions common to mankind. If we desire to trace the different diseases of the body to their main cause, we shall find that although in many it may be difficult and even impossible yet in perhaps the majority of cases it is not comparatively speaking a very hard matter to determine the chief exciting causes. If of the various forms of fever, we take the intermittent we find that it owes its origin for the most

part to the influence over the system of a peculiar poison termed malaria or marsh miasm which infests those districts situated near low swampy grounds where the water becomes stagnant and also where vegetable matters are undergoing decomposition. There are many curious circumstances connected with this poisonous effluvia of which perhaps it will not be out of place to mention a few. Watson says that although the emenations which cause the agues are not [illegible] common about marshy places yet that neither the presence of marshes or of vegetable decomposition is necessary for the production of what he by preference terms malaria but that the requisite conditions are viz: a surface capable of absorbing moisture and that this surface should be flooded and soaked with water and then dried: the higher the temperature the quicker the drying process the more plentiful and virulent will the malaria be. It is more dangerous at night than in the daytime. It seems to lie near the ground

and is borne along by the wind, so that persons living at a distance from the source may become inflicted by it. A thick forest or a stream of water intervening is said to afford protection to the inhabitants dwelling near the place where this poison is exhaled. The primary causes of the various exanthemata as measles small pox and scarlatina are not well understood but it is well known that their extension through families and villages is due to contagion. We have examples of epidemics in those occasional visits to our northern cities of the dreaded yellow fever, and there is what is known under the name of diphtheria which frequently appears as an epidemic. Dysentery, cholera, cholera morbus and various other forms sometimes take upon them the character of epidemics. We also have diseases which may I think properly be called national arising from the habits, manner of living &c of the people. England has for her national

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complaint — that which is described under the name of Gout, and we very often see our friend John Bull represented with one foot well bandaged and a crutch by his side — both being the direct certain consequences of his state of "fast living". In this country the prevailing disorder as far as my observation goes is Dyspepsia, occurring in the digestive organs, and resulting for the most part from the pernicious manner of living which the people persist in keeping up. My idea is that Uncle Sam, as he is familiarly called would be much better represented than he is now if he were placed at a table with his mouth open and a pair of steam arms pushing into him all kinds of smoking hot meats vegetables and drinks all in one jumbled up mass. Perhaps I possess to great antipathy against this disorder but I can't break over it not because I doubt its arising in many cases from unavoidable causes; but because I do believe that in by far the larger number of subjects it is an entirely

unnecessary complaint originating from what may very properly be termed cramming. This cramming the stomach with hot food half masticated; this cramming the brain with mental toil; this cramming the body with physical labor is what I never did and never shall uphold for I do not believe that it is at all necessary for any man under almost any circumstances to do this. The wise man has said and he spoke truly that To every thing there is a season and a time for every purpose under the sun. To be sure there may perhaps be some few times when man should is obliged to be irregular in his habits; but it is not the occasional but the continuous abuse of those laws which should regulate our lives that gives origin to this disease. Having thus very imperfectly given a general view of disease perhaps I may best close this subject with a few words respecting the treatment of disease. Many people have some ideas about what they regard as a successful

physician that they do respecting a general of an army, viz: The general, according to their mind, to be one worthy of honor must be successful on every field of battle no matter how numerous an enemy he may have to contend with or whether he has exhausted the strength of his men or fired his last cartridge. The physician must be able to cure every disease which he may be called upon to treat no matter what the disease may be; or how fatal in its character; or at what period he is sent for. These circumstances make no difference at all, he must win the fight or cure the disease else be set aside as an ignorant man: an impostor. To be successful under these conditions in my humble opinion the one must posess the combined strategy of all the generals the world ever produced and the power to make the elements subservient to his will: the other must have an eye that will penetrate every tissue in the body, the widest range of observation; the most

thorough knowledge of all the medicinal agents ever employed. For he must be able to overrule Providence itself. If I am allowed to leave this Institution as a Doctor I shall not carry with me the idea that all diseases are curable or that I can cure every disease. i. e. and leave the patient alive. I do not believe that there has as yet been discovered a specific for every disease and doubt very much whether we have a specific for any one disease. Quinine in ague and mercury in syphilis are the nearest to specifics of any agents we have yet they both fail in many cases. When there is a strong predisposition to any disease the attack may often be averted if we can discover and guard against the exciting agencies as for instance a man may have a hereditary tendency to consumption yet may escape the fatal complaint by seeking a warm and agreable climate and by avoiding whatever is liable to rouse the dormant tendency into action. On the other hand when the

exciting causes exist as contagion and malaria we may put ourselves in comparative safety if we know and can prevent the predisposing causes The more the body is weakened or exhausted the more readily will it yield to the pernicious influence of the exciting causes just mentioned.
In the treatment of disease many physicians have some peculiar notions as regards the use of medicinal agents. Some rely upon calomel as the remedy for everything while others cry up bleeding as the sheet anchor by which life may be saved. The truth is that both are very valuable remedies if used when and where they should be but like all other agents may be made not only valueless but even destructive of life by the abuse of them which is by no means uncommon. There has been much said against the use of the alcoholic stimulants some going so far as to say that they should be banished entirely from Materia Medica on account of

the great liability there is in creating a morbid appetite for alcohol. I do not believe that such doctrine is right; for it is very true that life has been sustained in many cases by these same stimulants. I consider it the duty of every physician to save life if possible by any means which may be within his reach. Therefore if stimulants are required I say they should be used for a Dr's reputation and the lives of many patients perhaps, are worth more than the supposition that some one may be made a drunkard as the former cannot be restored, while the latter may be reformed. There are many circumstances which, though they appear to be simple, yet are of great importance in the treatment of disease. One is the gaining the confidence of a patient, getting him to trust implicitly in the ableness and willingness of the physician to relieve him; without this there is not much use in administering medicines, unless we have those

that are powerful enough to overcome both the want of faith and the violence of the disease. Pleasant and well ventilated rooms, cheerful nurses and conversation go far towards alleviating suffering. There is one thing which especially in country practice often annoys the physician and that is the visiting of a patient by some neighbor or friend who endeavoring to impress the importance of his judgement upon those about him solemnly gives it as his decision that the patient must die that there is no hope for him and so on. Now all this though well-meant serves to depress very much the mind of the patient and may even have a fatal effect therefore such persons should be kept away till their assistance is desired. These are my ideas upon this subject and although imperfect and deficient yet I hope they will answer the purpose for which they were intended.

Finis

A Thesis

on

The Nature of Inflammation.

Written for Graduation.

Yale Medical College.

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by

S. Douglas Twining.

The Nature of Inflammation.

Inflammation may appear as an effort of nature to throw off the effects of violence to a part, or to resist the encroachments of disease, and may terminate with the restoration of health: It may when once excited spread widely, though the susceptibility of the system to take on inflammation, or it may arise spontaneously without any apparent cause.

Except the epidermis, hair, and nails, there is no part of the human economy which is not susceptible to inflammation; the susceptibility of a part to inflammation may be said to be in direct proportion to its vascular and nervous endowment, the importance of its function and the nature of its exposure; hence it is found to be most common in the skin, cellular tissue, mucous and serous membranes, lungs, liver, and kidneys. Appearing as it does in such a variety of tissue it presents many diffe-

rent phases according to the degree and kind of inflammation. It is said to be acute when it runs its course swiftly, and has well marked symptoms for e, and rapidity of action being its distinguishing features; and chronic when it is marked by slowness and feebleness of action. Inflammation is common when it arises from an ordinary cause, specific when produced by a peculiar diathesis of the system, as in the rash of measles which differs from the rash of scarlatina, and both differ from the eruption of small pox. In these diseases the application of a specific poison is necessary to produce the inflammation. John Hunter says "all inflammation attended with disease "has some specific quality which simple "inflammation has not and in such cases "it is the specific quality which is the dis-"ease and not the inflammation.
"There are many constitutions that have a "tendency to specific disease that when injured

"by fever, or any constitutional complaint,
"readily produce the specific inflammation in
"such parts of the body as have the greatest
"susceptibility for any specific action, or if
"such parts are affected by any local violence
"they will not go through the healthy adhesive
"inflammation, nor will they enter into the
"healthy suppurative inflammation, but will
"fall into the specific inflammation peculiar
"to the habit, such is the case with an ery-
"sipelatous habit; or if a specific inflamma-
"tion has already taken place any violence done
"to the part will increase that disposition and
"action. Inflammation may be latent, that
is does not reveal itself by the ordinary phæ-
nomena, and also certain inflammations are ca-
pable of appearing only in certain tissues.

In all the different forms of inflammation
the local symptoms are pain, heat, redness,
swelling, and impaired function of the part in-
flamed; these are prominent according to the
intensity and extent of the inflammation, and

are modified by the character of the tissue in & around the diseased part.

In health the blood is forced by the action of the heart, and by the elasticity of the arteries through the capillary vessels continuous from the arteries to the veins: here its ingredients are selected and assimilated to form the tissue peculiar to the part.

This formative process is partly mechanical and partly vital, the blood is forced through the ramifying vessels uninfluenced by the stoppage of its flow through one or a collection of them, that have suffered from violence or disease, but not so with the vital part of the process, its derangement effects the neighboring part and that part spreads the trouble until it may be the whole system is implicated.

A part of the body receives an injury irritation is produced causing the succeeding influx of blood. Dr Thomson found that irritation was followed not only by a bright-red color

visible to the naked eye, and a sensible en-
largement of the arterial and venous branches,
but also with an increased rapidity of circu-
lation in the capillary vessels. In this en-
largement and tension of the capillary ves-
sels pain is increased, from stretching as well
as the pressure upon the nerves; this opinion
was held by John Hunter who says "the pain
" is increased at the time of the dilatation of the
" arteries which gives a sensation called throb-
" bing in which one can account this own
" pulse by paying attention to the inflamed
" part." The character of the pain is deter-
mined by the kind of tissue, and the sen-
sibility of the part: if the tissue is loose
there will be little pain, or it may be of a dull
tensive kind, if firm in its texture or the or-
gan is covered by a strong fascia it will be
of an aching kind, or if the part is largely
supplied with nerves it will be intense.

In inflammation from injuries many parts
of the body give pain peculiar to themselves, and

also the same mode of impression will give a peculiar sensation in one part while it gives pain in another, thus what will produce sickness in the stomach will cause pain in the colon. There may be inflammation without pain, as in that subtle disease inflammation of Peyer's glands in typhoid fever. The nutritive process is stimulated by the unwonted supply of blood augmenting its vital function, and thus increasing the temperature, the sensation of which through the irritability of the nerves is out of proportion to the degree of heat, in blushing the person has felt a transient though distinct degree of burning heat that could not be measured by the most delicate instrument.

The increased action of the arteries enlarges the capillary vessels, and the same force passes the red corpuscles into vessels before too small to admit them, thus increasing the redness of the part serum and coagulable lymph are also infiltrated through the expanded walls of the

vessels into the interstices of the cellular tissue producing swelling. The vascularity of the tissue is increased by new vessels forming in the coagulated lymph giving redness, if the inflammation is healthy the color will be pale red, if less healthy of a darker hue and so on until it may be purple inclining to blue, or black. Sometimes it is diffused over a large surface in other inflammations it is limited by a distinct line.

Besides these local symptoms when the disease is acute in form there is constitutional disturbance, the blood becomes changed in quality by a loss of the healthy proportion of its ingredients, the fibrin is increased and there are other changes in the character of the blood which give it a peculiar appearance after it has been drawn from a vein called buffed, and cupped; the buffy coat appearing more decidedly as the inflammation is more severe and situated in the fibrous or serous tissues, though acute inflammation may exist without giving this property to the blood, and the blood may have

this property when the system is in no way affected by inflammation.

If the inflammation reach a certain degree of extent and intensity febrile symptoms appear, there is debility and chilliness followed, or alternating with increased heat of skin; increased frequency and force, and often hardness of pulse; with considerable derangement of most of the natural functions of the body.

The most favorable form of inflammation is that which may commence, run its course and terminate without the action of the heart being at any part of the time affected.

There is in health a certain state of tension belonging to the tissues of the body, and in these tissues the capillaries appear as immovable canals through which the blood flows without undulation or pulsation, and this freedom from pulsation is owing to the passive elastic pressure of the arteries, and also there is a due proportion between the pressure from the heart

and arteries, and the resistance of the tissues; now let the tonicity of the tissues be lessened the pressure of blood remains the same, and according to the debilitating effect will the blood flow to the weakened point where the resistance is less, and thus must the point inflamed assume a circular form; because the pressure is equal on all sides, and for the same reason the accumulated blood must become stagnant in the capillaries including the terminations of the arteries and veins. This process goes on until it seems as if nature had overcome the tendency to disease, the steps are reversed, the sluggish circulation at a distance quickens, and gradually approaches the point of stagnation carrying again into the circulation the stagnant blood until the circulation of the capillaries is restored.

This process has been repeatedly immitated by applying irritants to the web of a frogs foot, and it has been observed that, during that during the flow of blood immediately preceding stagnation the colorless corpuscles accumulate in their prog-

ress onward on the inner surface of the walls of the ~~vessels~~ smaller vessels, and while they have even become stagnant on the walls of the vessels the red corpuscles increased in proportion to the plasma still continue to float on but more, and more slowly until complete stagnation ensues. Gendrin says of the stagnation of blood in inflammation when observed under the Microscope. "The capillaries at the irritated point dilate and seem to multiply themselves: the globules arrive, they are crowded together, their motion is retarded, and at length suspended they revolve upon themselves and at length remain entirely at rest. For some distance around the irritated point, the retardation of the circulation and the dilatation of the capillaries are plainly seen, a little further off the circulation is more rapid, the capillaries being still dilated, and the globules of the blood less distinct finally, at the limit of the areola the circulation is on the contrary accelerated, the capillaries dilate, and the

"blood contains a greater number of globules. All
"these changes may take place in four or five
"minutes, and the same time is sufficient
"to allow of the capillary circulation return-
"ing to its natural state.

The amount of serum and lymph which is effused from the dilated vessels is in proportion to the continuation of the pressure, and the quality of the blood; and when resolution takes place the exudation is stopped, and that already poured out is absorbed.

The phenomena of inflammation subside in nearly the same order as in its development they set in with. The blood within the vessels begins to oscillate and at length flows in a continuous stream. The pain diminishes and disappears first and in the same degree the temperature and redness lessen, the swelling alone often remains for a still longer time until the absorption of the fluid effused into the cellular tissue is complete. Resolution is distinguished from the disappearance, or recession

of inflammation which is in general connected with its simultaneous or speedy development in another organ, and frequently depends upon an irritation which is more severe than that which kept up the inflammation. It is often merely a deranged state of changed vital activity which produces the removal of the inflammation. When inflammation does not terminate in resolution all the symptoms continue, and are aggravated in degree, until certain changes result in the process, the character of which is determined by the vitality of the tissues. These various transformations effusions, suppuration, ulceration, and mortification are brought about by inflammation, and are still accompanied by it for a long time, attended by an abatement of the inflammatory symptoms but with increased constitutional disturbance; as when suppuration induces hectic fever with its rigors followed by flushes of heat and perspiration, and thus the strength of the patient may be exhausted, or he may die of a diseased state of the blood caused by absorption of the unhealthy product of the inflammatory process.

By this term is designated those discharges from the bowels which are not dysenteric in their character. It is divided into the acute or simple form and the chronic or that form met with in the army hospitals.

First of Diarrhoea as a whole. This is very often an attendant of disease. In the last stages of phthisis there is often a persistent diarrhoea. In Typhoid fever it is one of the very bad symptoms when it comes on in the latter stages. In the decline of the febrile exanthemata and malignant diseases of the lower bowels diarrhoea constitutes one of the principle symptoms and is one of the principal objects of treatment

First of Complete Diarrhoea

This may arise from a variety of causes or other pathological conditions, as the increased peristaltic action of the intestines,

an irritating substance in the canal which causes an irritation of the lining membrane of the intestines which may cause a secretion of the glands of the membrane that will set in operation an acute diarrhoea the secretion of the abdominal viscera as the liver spleen &c may be so altered in character as to produce it.

Arising from so many different morbid conditions the symptoms are as different and various as their causes except the one mentioned in the definition. As relating to the discharge they may differ much in regard to the number

sometimes there being not more than two or three in a day and in some cases the patient will hardly arise from one stool before called to another. In quantity there is as great a difference as in number it being sometimes scarcely more than natural in others the quantity has amounted to thirty & even forty pounds in a day.

Generally there is pain before the discharge of a griping nature which hurries the patient to the stool which is generally moderated after a passage from the bowels although in some cases the pain continues throughout the entire time. Following the discharge there is a paling of exhaustion or sinking with the sensation of fainting cool skin feeble irregular pulse which however soon passes off

It is sometimes attended with fever which is an indication of inflammation of the lining membrane of the intestines. In however the majority of the cases there is no fever, the skin dry and urine scanty.

Regard to the duration of the disease there is every variety it usually can be checked in a few days but sometimes it continues inspite of every means used to check it when it takes on the chronic form of which we shall speak hereafter.

Death from the simple form seldom occurs but when it does it comes on from the prostration of resulting from the enormous discharge which occurs in some cases.

11. Diarrhoea from increased peristaltic action of the intestines

The looseness of the bowels which is the result of fright or any other strong mental emotion is from this cause the same may be said of it as the result of the hysterical or other nervous affections. The copious diarrhoea of great cities to which the exciting cause of the increased action is the over distention of the bowels which is felt as a direct stimulant to the increased action. In these cases the discharges are of a semi fluid consistency of a fecal odor and of a natural color.

2d Diarrhoea from irritation of the mucous membrane of the intestines. This is by far the most frequent course of this complaint and it is sometimes difficult to distinguish between this and inflammation of the bowels. (Enteritis) as they run into

each other and there is a shading off of each so that it is hard to point out the dividing line.

Diarrhoea of irritation may exist in two ways it may be from irritation independent of any other disorder of the system. or it may be produced by some diseased state of some other organ.

The most common cause of irritation acting directly on the membrane are the eating of ~~unrip~~ improper food, insufficient mastication, acid or saccharine fruits more especially those which are unripe or used in excess, mouldy or corrupt food such as is sometimes used in the army or on ship board spoiled liquors, sweet cider, worms or accumulation of fecal matter in the intestines. particular kinds of food produce in some persons the same effect

all of these have the effect of a direct irritation to the mucus membrane of the intestine without having any connection with any other part of the system.

Of causes that act through the system Cold is the most productive of disease particularly when it follows a high degree of heat for this reason it is most prevalent in the autumn when the heat of the ~~summer~~ day is followed by the chill of the night. It may occur from the change of rheumatism or gout from some other part of the body to the bowels The retrocession of some of the cutaneous diseases or the supression of some of the habitual discharges may set in operation a very active diarrhoea.

In Diarrhoea from irritation the discharges are of a natural consistency

and color sometimes streaked with green from an altered state of the biliary secretions and sometimes the discharge is mingled with blood from some ulceration where the inflammation has proceeded to that. Sometimes the discharge is large and watery and then it is termed serous diarrhoea in others the discharge is of mucus nature when it is termed mucus diarrhoea

Some of the diseases of the liver are more apt to produce it, by the irritating effect of the diseased bile of the membrane of the intestines.

Treatment

We now come to the treatment of this simple form this in most cases is quite simple the disease yielding with very little difficulty

In the first form (a) from increased peristaltic action of intestines the indications are to check the increased action this is easily accomplished by from ten to twenty gtts of Tinc. Opii or 31 of the Camphorated Tinc. Opii. In that form which is the result of an over distention of the intestines with food the bowels should be relieved by some gentle cathartic as a dose of castor oil and the intestines relieved of the distention the diarrhoea generally ceases with the removal of the cause.

In the form the result of irritation the first indication is to remove the cause of the irritation, when it is slight the removal of the cause is sufficient to produce a cure this is produced by some cathartic and for this purpose rhubarb is best as after the cathartic effect

has been produced there is an astringent effect of the rhei which stops any further discharge.

Where there is a green color to the discharge showing a deranged state of the biliary organs some alterative should be combined with the cathartic

In giving cathartics it should be remembered that they are onely given to accomplish a certain object and when that object is accomplished the further continuance of them are a positive injury to the patient When worms are the ~~ca~~ cause they should be destroyed by some vermifuge followed by a cathartic.

At this point if the discharge does not cease the treatment is changed and we control the discharge by astringent for this, some of the vegetable astringent are best as Kino. Catechu Rating &c

The infusion of Geranium Maculatum is a good remedy for children owing to its not unpleasant taste

The following is a formula much used in this Hospital in cases of simple diarrhoea

℞ Creta Preparato
Pulv Acacia āā ʒI
Tinc Catechu ℥I
" Opii ʒI
Oil Cinnamon Q.S.
Watter ℥V

M. Of this mixture a table spoon should be given three times a day care should be taken in regard to the patients diet which should be such as yields very little yields excrementicious matter boiled milk porridge is a diet which is very good in this account.

I now come to speak of the most serious part of the subject the Chronic form as [illegible] the [illegible] is very [illegible] this to [illegible] much from the Chronic Diarrhoea of civil practice. In speaking of this disease I find my self obliged to proceed without the help of books and to rely on my own observations and the instructions of my teachers as this disease has been so lately brought before the profession that comparatively little has been written on the subject so that in my treatment of the subject I shal be liable to many mistake which with the books for guides would be otherwise avoided.

There is perhaps no more troublesome complaint which the

surgeon in the field meets with that chronic diarrhoea resisting as it does at times every means of cure gradually drawing the patient to "that bourn from which no traveler returns"

To show the importance of this disease in Army Hospital practice I will refer to the records of the Knight Hospital

The number of patients admitted to this hospital up to Nov 27th (61) was 2034 of these 1049 were admitted from wounds and 985 from disease. Of the 985 admitted from disease 213 or nearly one fourth of the number was from Chronic Diarrhoea of the 1049 who were admitted from wounds to one sixth of the number had diarrhoea as an accompaniment and of those who had some other disease

had diarrhoea as can accompaniment
From the statements given
I shall be safe in saying that
chronic diarrhoea is one of the
most frequent visitants of the camp
of all of the germ monsters (diseases)
I now come to the more difficult part
the consideration of the cause symptoms
& treatment of chronic diarrhoea.
As to the cause we have in
the soldier life all of those
causes which would produce the
simple form acting with very
much more force than in civil
life and also as continuation of
those causes after the acute stage
is formed which carries the disease
into a chronic form.
The food of the soldier is one of
the great causes being for the
greater part of the time confined
to salted or one kind of food

the almost entire absence of vegetable and particularly of green vegetable food from his rations, the continued exposures of the march going from the heated exhausted state of the march to the earthy bed and chill of the night, the complete irregularity of every previous habit the frequent excesses of the soldiers life all conspire to fix on him this plague spot of the army which continues drawing from his strength and seldom leaving him till he goes to make one more of those little mounds that so thickly dot the southern hillsides and tell where brave men have written out an never dying future record. In the examinations after death my resources for learning the appearances have been somewhat limited, but in what I have been

able to learn of the state of parts that in many cases the mucous membrane of the intestines is thickened and of a dark mottled appearance interspersed with dark green spots the natural appearance of the parts entirely gone with a smooth glassy appearance of some portion of the membrane. Ulceration of the intestines does sometimes occur although it is not a very common occurance the larger portion of those patients having no discharge of blood with the fecal matter In some cases there seames to be a morbid irritability of the lining membrain and in other cases there appears a insensibility of the membrane. In examinations after death the other organs of the abdominal viscera there is usually signs of disease and it is not uncommon for a patient reduced to the last extremities of life to be

seased by some other disease and his course suddenly terminated.

The discharge varies much in this disease as in the simple form the patient being sometimes greatly called to stool but usual the discharge is of a semifluid consistency and sometimes contains parts of the undigested food, the patient usually having to evacuate the bowels from three to eight times during the day this state of thing continues the patient becoming gradually weaker the skin assumes a safer hue there is a dark line gather under the eyes the pulse weak and small but usually not much quickened the tongue having a dry apearance slightly fured and having red points around the edge emaciation continues there is concidrable griping pain before a passage which generally relieves it. during the intervals there is

a feeling of lassitude and weakness but no positive sufferin the patient wishing onely to be left alone. the patient continues in this condition for some time with no other change than a gradual wearing out of the patients strength the emaciation continues the skin grows of a darker hue sometimes of an almost mahoga-ny hue the patient continues in this state for some time when some exposure gives a sudden violence to the disease and the patients life is soon terminated.

Treatment

In the treatment of this disease there has been a greate variety of plans of treatment adopted but as yet none have been as successful as could have been wished the dyet of the patient is one of the verry important things

in this disease. There was received into the Knight Hospital from 460 240 men from the battle of Fair Oaks of whom the greater part had diarrhoea in connection with their wounds these men had been on the army rations of beef & hard bread with very little vegetable food they were immediately placed on a diet of green vegetable as raw potato cabbage onions &c and the effect was most marked the patient recovering very rapidly and all of the patients ~~with~~ ~~&~~ this that have covered with all say they feel better for the use of vegetable matter in the dyet

In regard to the medicine used in this disorder most of the astringent medicines have been tried but with little affect the treatment

seeming to be redirected more against the state of the system than a checking of the discharge.
The Lead & Opium pill as used in this disorder the formula is

Acetate of Lead ℈ I
Pulv Opii gr X

M ft pille No. 20 of which one should be given every four hrs.
but the use of the lead must be omitted after a time as in so long a disease we sometimes find its specific effect. Tannin is sometimes used in the place of the lead where there is signs of ulceration.
A pill of Opium Iron and Ipecac has been found to have a very favorable effect on the disease.
The formula is

M ft Pille no XVI	R Pulv Opii	gr X
	" Ipecac	" IV
Take one three	Sulph Ferri Exsic	" XVI
times day	Sulph Strychnia	" I

This formula is sometimes used by leaving out the Pulv Ipecac — this has had a very good effect on the patients in this hospital. In the American Medical Times of Sep 5th 1863 I find an extract from a pamphlet by Dr Trask of the U.S.A. stating the effect of the Sub Nit Bismuth in this form of diarrhoea it was given Sub Nit Bismuth gr X Sub Nitr Hydrogar X this was stated by the writer to have been eminently successful in this disease it was tried at this hospital but the good results discarded by him did not [illegible] use very little good results being seen from it.

An injection of starch & Tinct Opii given at bedtime has a very beneficial effect in checking the discharge and quieting the patient

after all the treatment of [illegible] disorder is very unsatisfactory and there is a wide field for improvement [illegible].

A pill of colomel and [illegible] is used by some for the quieting effect of the opium and the alterative effect of the calomel great attention is necessary in regard to the clothing of the patient such a manner of dress as to be light warm and to guard the patient against sudden changes moderate exercise is good to such an extent as not to fatigue the patient: with these few disconnected remarks I will [illegible] the subject and myself in your hands

Cathartic Remedies

Nothing is more frequent than the use of Cathartic remedies. Their names are household terms known to every child, while the ability to recognize them by their sensible properties is often the hight of wisdom to which the parent aspires. The anxious mother wishing to relieve her child without the expense of a physician will wait for indications before giving an emetic. Not so with Cathartics however. They are always attended with beneficial consequences, she thinks, and purging never does any harm. Forgetting that an active Cathartic if misused cannot be harmless. For a positive agent must be positively bad, if not positively good. And powerful yet harmless preparations are not a possibility, though ten thousand patent medicines would convince us of the fact. As no class of remedies is more resorted to so none is more serviceable when judiciously selected

and timely administered. But their indiscriminate use so constantly seen embarrasses the physician and endangers the patient. With those too who should know better or at least think more they appear to be prescribed often as a matter of course without much regard to the existing state of the system or to the important effects which they produce.

It becomes then the medical student to familiarize himself perfectly with the various cathartic [illegible] their distinguishing characteristics and uses, as he would do his duty by himself and by others and learn to meet disease with judicious rational treatment.

Cathartics are articles which by increasing peristaltic action also increase the discharges or evacuations from the intestines

They excite peristaltic by Irritation of the mucous membrane, or of the Muscular coat by sympathy or by reflex action.

They act upon the liver and purge indirectly by the bile induced.

They call out the secretions which carry along the retained contents

Again they are taken into the circulation and produce their effect in consequence of such absorption

The simplest agents act in many of these ways, and we cannot tell what direct irritation & what nerve power effects or why it is that one organ has, as a part of its peculiar vitality a special susceptibility to a certain substance.

In their Therapeutical effect

They diminish the action of the heart and arteries by removing nutritive matter from the blood & lessening the quantity of the circulating fluid.

By a sedative power they determine the fluids to the intestines and by producing a decided impression upon them relieve other parts.

They depurate the blood removing from it all noxious matters.

Again they take full possession of the system for the time and thus prevent the onset of disease.

Lastly they Evacuate the bowels.

Cathartics does not consist them simply in evacuating the contents of the intestinal canal. It sets into more or less active operation a large extent of mucous tissue and a number of important glands. The action upon the venous and nervous system and on

the brain must be taken into view if we would fully appreciate their influence on the living body.

While in many attacks of disease such action is just the treatment to be employed, and though there is scarcely a disease but in some stage Cathartics are appropriate; still it is easy to see there are conditions of the system forbidding the use of particular remedies and of even the entire class. Common as are these agents, nothing occasions the careful student, at times, more perplexity than the question of the propriety or danger of their use.

When he encounters sthenic disease he feels little doubt, the books agree that they should be used, and that vigorously.

But when he attempts to form a plan of practice that will be applicable to cases of asthenic grade he finds testimony at variance. There is a condition where all the functions are disordered,

all the secretions more or less perverted.

An affection of the nerves, of the circulatory, or of the digestive function, of any one of these alone, is not fever; though the several parts may not be affected at the same time

The nervous system may alone be deranged for a longer or shorter time before the pulse indicates disturbance. And both the nervous & excretory before the secretory & absorbent systems become implicated. Or when the fever is fully established one may show greater disturbance than another. Still the entire system is involved, and though much must be allowed for the variation in of disease of the same nature; the same speed of action, occurring no matter when & where cannot be counteracted with Equal success by opposite modes of treatment We must regard the season & climate, we must regard the diathesis of the patient & the character of the prevailing disease When it takes on a typhoid tendency, or when appearing as an epidemic, it has a character peculiar to that Epidemic, & proves

most obstinate to establishen treatment;
or when the patient is liable to low forms
of fever, or when active agents have an
unwonted power, the treatment must
follow the indications. Again we must
regard the stage of the disease, In the
commencement purges of an active nature may
be required; later in the disease such
articles only should be used as will not
irritate or debase. We must regard the
condition of the vascular & nervous system,
& forgetting the modifying effects which age
sex, habit, and mode of life exert.

In Fever the peristaltic motion of the
bowels is generally impaired & costiveness a
prominent symptom. The matters retained
cause irritation which in turn produce local
and general disturbance. The mucous
membrane often becomes disordered, the
secretions are arrested, or altered in quantity
or quality. The secretion of bile is diminished
altered or suspended. And the brain and

abdominal viscera are affected.

Early in the disease a Cathartic should frequently be prescribed that faecal matter may not remain in the alimentary canal to aggravate the first symptoms of fever. Nay it should be administered even if not directly indicated, that faeces from ingesta already received may not remain & occasion trouble when evacuants would not be admissible. Employed with diaphoretics & external irritants they are of value in asthenic diseases, but must be used with caution. For diseases of this grade when they terminate fatally generally fix themselves sooner or later on the alimentary canal, more especially at the present day.

When arterial excitement is high, all stimulants generally, both external & internal must be abroided & quiet enjoined. This is no time for cathartic remedies. They will do no good & nothing will irritate and make the patient more wretched. But if depletion

is indicated, this is effected more quickly and easily by directly abstracting the required quantity of blood.

Cathartics may fail in timely relief, in quantity and extent of effect produced. It may by the irritation kindle up local inflammation. If however inflammation is already established in some part other than the bowels, here if depletion is indicated if the excitement is to be equalized, if serum is effused and absorption to be promoted they may be used with more safety.

Cautiously however, for death from low fever is very generally preceded by colliquative diarrhea, and it is exceedingly uncommon that a case terminates fatally when it has been characterized by entire torpor of the alimentary canal. This should make us most watchful in the use of our agents, and while we would say too much caution cannot be used in prescribing cathartic remedies, we would not totally forbid them.

For there are conditions of the system more critical ones too, in which he alone knows well the [illegible] may administer timidly, what in other hands would be the deadliest doses.

For symptoms are reliable and he who bases his treatment upon them will pursue a course safe to himself, and to those committed to his care.

We would leave Catholic remedies then with the intelligent & conscientious physician placing them at the back of the symptoms, it remains for him to decide upon the propriety of their use. For when there are duties there also are the obligations. If it is his duty to acquire knowledge and skill and bring them to his aid, so also is it his right to rule in the sick room and to insist upon the absolute control of every circumstance that can effect the patient. He cannot always heal. Man is born to die, and all

will err at times. But such a practitioner will never expose himself or his profession to ridicule and will only suffer regrets which will make him a better man.

But practitioners are not all thus intelligent and conscientious. True, we meet many men in all the walks of life. They disgrace medicine they disgrace humanity.

There are those who are actuated by no higher motive than the desire of gain. Men who have lived without thought and who must practice without thought. With whom a set of formulae meets every emergency. As Paul and the shipmen cast four anchors out of the ship and wished for the day, so they prescribe perchance a cathartic dose and invoke Fortuna. Diagnosis with them is but a name, conscious of their imbecility, every case is approached with fear, and a favorable result is but accidental and unsatisfying. It is possible for such to live unexposed and respectable, for the worth of

our ablest medical men is unacknowledged their usefulness unheeded they live retired and forgotten The physician heals disease without parade in the quiet of the family.

The other professions appeal to the mind of men and are accountable at the bar of every mans judgment. The tricky lawyer is despised, the unjust judge sits himself condemned the fanatic is either disregarded or driven from the pulpit.

The physician works in secret and is accountable only to himself. Darkness favors crime, and man may sink so low as to know no other motive than the desire of gain but who knows whether this or that skull incloses

Providence overrules selfishness for good, and urges all men to do their best. Giving the amplest returns often least expected.

Nor is this all human happiness and human life pleads with trumpet-tongues against ignorance and quackery; while his profession the noblest of all appeals to the highest

qualities of his nature, and prompts him to confess the authority of conscience and acknowledge it as the highest tribunal to which men is amenable.

Conscious of responsibility he cultivates observation till every symptom tells of the condition within. He sees disease as in a body transparent and can sometimes anticipate its progress. For his practice is not always one of passivity and double he is to act and act often vigorously, to dare all that becomes him. But he will will not attempt to throttle disease when to refrain from acting tests a higher courage. Often he must remain a patient waiter upon nature, quick to read her signals and further her efforts content to play a second part in the restoration. (content to play a second part in the restoration,) but confident that such practice guided by a conscientious determination to perform each duty as it offers makes

success in that higher sense for secure.

Such rather is the brotherhood of medical men, not keen eyed to pecuniary return, as a class ennobled by their life, and in love with their profession, even at the bedside to alleviate and to heal.

Taking such to be the true representatives of the medical profession we leave with them the use of every agent, sure that in their hands our best interests are secure.

W. M. Dowd

Ladies and Gentlemen

It has been customary in past years for the successive medical classes, that have presented themselves for graduation on these anniversary occasions, to participate in the exercises of the evening by a representative from their own number. In accordance with this custom, and by request of the class who have now finished their course of study, though much against wishes, I have consented to appear in this capacity this evening; not so much for the purpose of discussing in an elaborate manner any medical topic, nor to give formal valedictory addresses, but rather to keep up the custom of former years, to say something upon some subject connected with medicine, and to give utterance to the respectful and fervent regard which we have learned to cherish for those honored teachers

who have guided us so peculiarly through the difficulties of our Studies —

These occasions unattended as they are with the pomp and circumstance which belong to the commencements of the Literary Department of the University do not interest the public attention — But to the young man who dates from this time the beginning of his struggle for a livelihood; as name and a place among his fellow men, and assumes the vast responsibility of the health and lives of others, it is an occasion of exceeding interest, not often to be surpassed in life — We go forth from this place as professional men, full of misgivings and doubts as to the future; and distrustful of ourselves for we know that we have very imperfectly and superficially cultivated the field of medical knowledge; and have accomplished only just enough to show us that we know as yet nothing at all, as compared with what ought to be known by one who assumes such great responsibilities — It is the law of the

medical profession, that its ranks are filled with men whose course of study ended with the examination for their degree; and who have added in subsequent years to their meagre store only the knowledge which experience has given them — If graduation is to be the end of study for us, better that we had not not been permitted to finish our course, or that the time assigned to study for graduation had been increased to three times three years — May not we be content — to swell the number of those who dishonor a profession which ought to be honored for its dignity, its respectability and learning —

In the daily practice of our profession, one question will ever be pressing itself upon our attention for an answer — "how can health, when lost or injured, be restored" — To the study of this question, we ought to give the best energies of our lives; for we must give a practical answer to it, for weal or for woe, in each individual case that shall be presented to our professional care, — The problem of health must ever be the especial study of the physician; and let

This, or rather the known and unknown elements in it be the subject of our present, be the subject of our present of our present consideration

To give a full and satisfactory solution to this problem requires a perfect knowledge of the anatomy and physiology of the human body

We must include in our knowledge the character and workings of that mysterious vital principle which we call life — We must know the causes of disease which attacks us from without and within, and the nature and physiological action of the remedies to be used in overcoming disease, In short to solve the problem of health we must know the conditions upon which life is maintained, and how to satisfy those conditions — This problem has never yet been, and assuredly never will be fully solved; for then we might hope to prolong the life of man indefinitely. But such was not the purpose of the Great Author of our being; for Nature as well as Revelation assures us that it was appointed

unto men once to die" — Decay and death are written on the brow of every child of Adam; and the physician knows full well that though he may enable the victim to elude the grasp of the grim Monster for a season; it will be only for a season; for the Destroyer is sure of his prize at last — To the Theologian belongs the pleasing duty of seeing the sin-diseased soul Transformed and restored to its pristine purity and glory But it is the sad office of the physician to see the object of his care. The noble temple of the human spirit, ever losing its freshness and beauty, and turning to its native dust — And yet this sad picture is not without its cheering ray of hope; for in that Divine revelation in which we are told of the Soul redeemed and glorified and made like unto the angels; we are permitted to catch glimpses of that great truth, that These bodies so prone to decay and death, having passed the portal of the tomb, will rise to a new life, clothed in immortal youth and beauty; a

Tenement for the purified spirit = Then will be realized indeed that grand ideal to which the eyes of the Theologian and the physician is ever turning "Sin and Death swallowed up in Victory"!— Let us now turn to a very brief review of what has been done towards solving the problem of health, and what remains to be done — The study of the human body and its diseases has been more or less vigorously pursued from the beginning of Time — And now at the end of six thousand years how much do we know of the laws of its being? Not much it must be confessed as compared with what remains to be known, but much very much, when considered in relation to the well being of men, For it may safely be asserted that without the knowledge which we now possess, men could not live in a state of civilized Society — We may now be said to have a good knowledge (so to speak) of the geography of the human body — Its anatomy, descriptive topographical and comparative have been very

thoroughly explored and are well understood — and much progress has been made through the aid of that wonderworking instrument, the microscope, towards a good knowledge of its minute and pathological anatomy — Yet advance in this line of knowledge has been surprisingly slow. It was not until the end of four thousand years that the profession had succeeded in obtaining a clear and definite idea of the mechanism and functions of the muscular and osseous system — They had made some progress in the study of the nervous system; for they had traced out the connection of the muscles with the brain through the voluntary nerves and had shown that the directing power lay in the brain. But they had no distinct conception of the nervous system apart from the muscular; since Galen the best anatomists of the ancients, tells us that a muscle consists of a bundle of nerves and sinews — Still this knowledge of the bones and muscles was a good beginning

and a stable foundation for subsequent ages to build upon — Fourteen hundred years after the time of Galen, came the ~~xxxx~~ great discovery of the circulation of the blood by Harvey — It seems strange to us now to hear such acute observers as Hippocrates, Aristotle and Galen talking of the veins having their origin in the liver, and the heart and arteries circulating air received into them through the trachea! yet such was the fact — The profession had long been upon the borders of this discovery, but it needed the genius of Harvey to fully develop it — This discovery implies a great advance, not only in the knowledge of the anatomy of the human body, and the functions of the various parts of it; but also of the nature of a circulating fluid, and the forces by which it may be kept in motion — — — About fifty years later, we have another step of progress in the discovery and development of the lymphatic and absorbent system and consequently, a more complete conception

of the functions of digestion and nutrition. Something indeed was known of the lymphatic system before this time; but not much of its function as a part of the human economy. The fourth and last advance which I have to notice has been made in part in our own times. It consists of those brilliant discoveries by which we have obtained a clear general conception of the offices and functions of various parts of the nervous system. Bichat has marked the distinction between the ganglionic and cerebro-spinal systems; and showed that the former is the system of organic, the latter of animal life. Sir Charles Bell has explained the phenomena of reflex action: and showed that impressions are carried to the brain through one set of nerves and one portion of nervous substance; and that the impulses of the will go out to the various parts of the body, through another portion of nervous substance, and another set of nerves.

These four great discoveries, or rather, should & as eras of discovery, have given us a definite and precise general knowledge of the muscular and osseous systems — of the circulating system; of the nutritive system and of the nervous system. They are the great headlands of physiological knowledge whose bold peaks have been lighted up by the genius of successive discoverers — They enable us to triangulate, as it were, the vast regions which lie around and between them, and into whose unexplored recesses future discoverers will endeavor to penetrate

The summits of these headlands are indeed clearly seen and recognised; but their bases are shrouded in darkness hitherto impenetrable; for (to change the figure) as yet we know almost nothing of the forces and principles by which the great functions of circulation, nutrition and nervous action are performed. We have examined the human body as a whole and in the detail of its

parts — We know the material of which the bones ~~are made~~ and muscles are made — We know the elements that flow in its ever changing fluids, and can tell also of what substance that mysterious organ the brain is composed Indeed it now seems probable that not much will be added to our knowledge of the functions of the human body; except what may be expected from the aid of the microscope — —

The discoveries that will be made hereafter will be largely in the department of physiology

We know indeed in a general way the functions of many parts of the body; but when we carefully examine the best known of them; we find much which we believe is not beyond the pale of human knowledge but which is as yet shrouded in mystery.

The functions of digestion and nutrition will well illustrate the present state of our physiological knowledge — We know that the food which is taken serves to nourish the body — In its passage along the digestive tract

it is changed from a state of comminution to solution, is transformed into chyle or chyle; then taken up by villi or lacteals it finds its way either by the portal system or thoracic duct, into the venous channels, and finally through the pulmonic and arterial pulmonary reaches its destined capillary and becomes a part of the living body — So much we know and so much only we do not know what actually takes place at any step of this long complicated process —

Let us examine a single step of this process, the agency of the stomach in digestion —

Some have supposed that the process in this organ is one of fermentation; others that it is putrefactive; again others that it is galvanic — Some have held that the human stomach like that of the gallinaceous birds is a mere triturating machine; but the more general opinion is, that its office is simply to dissolve the food — Now it can not be doubted that all of these hypotheses

mechanical, chemical, galvanic, and physical are altogether insufficient— The Stomach must have the power of organizing and vitalizing the material submitted to its action— We can not believe that this organizing agency is Chemical. It must be by an unknown principle which we call vital force— What is true of the gastric action, is true of every step in the process of digestion and nutrition— While the food is in the digestive Canal, we do not know what additions are made to it; nor how it is affected by them— And when we come to the glands and the blood through which it passes, we are lost in a maze of catalytic and other transformations— Of the brain we have not even a general idea in respect to the offices of many of its parts— We know indeed that a portion of it seems to preside over the functions of animal life; a portion over voluntary motion, a portion over sensation and the special senses; and we think we have found, in the tuber annulare

a ganglion not larger than a small pea the throne upon which the mind sits in judgement when it decides what actions shall be performed and what not — Beyond this we know nothing

Out of that same strange gray substance, homogenious so far as we can see, there comes forth vision, smell, taste, hearing, sensation, motion energy power and thought — Who shall clear up the mystery that envelopes, that stumbling block of the medical student? the labarynthian maze of the ventricular cavities of the cerebrum?

Who shall tell us of the fluid that fills the nervous channels? through which the mind flashes its behests to the out posts of the body?

Is it a mild sweet fluid like to the white of an egg as Glisson thought — Is it an acid nitrous or sulpurous, as some chemists have held? Is it a subtle ether as Newton thought? or a subtle ponderable material as Haller believed? or an imponderable ~~[illegible]~~ substance as Cuvier supposed — But if we can comprehend the nature of this fluid; who can tell us how

its motions are transmuted into sensation and volition? Here indeed to go further we have need of of some hyperphysical principle. We pass from the body to the soul; from physics to metaphysics — The next step is into the domain of thought and mind, Such speculations as I have quoted concerning the nervous fluid coming as they do from the greatest philosophers that have ever lived; prove that hitherto the effort made to comprehend the mystery of perception, of will, of thought and life have been fruitless and in vain — Very many anatomical truths have been discovered but no general physiological principle — All courses of physiological research which have been followed, as we have seen in the instances of digestion and nervous action, have begun in exact examination of organization and functions and have ended in wide conjecture and arbitrary hypothesis — The Stream of knowledge has in all such cases run clear and lively at the out set, but instead of reaching the great ocean

of the general truths of science, it has soon spread abroad and lost itself in the sands of the desert — Harvey in tracing the blood through the intricacies of the pulmonic and systemic circulation has been compared to Kepler, slowly and laboriously working out the paths of the heavenly bodies, and preparing the way for Newton to unfold the hidden force of gravitation by which the machinery of the heavens is moved

May it not be that the way is now slowly being prepared for some physiological Newton who shall gather up the truths taught by the various functions of the body, and unfold the great law of life by which the machinery of the body is kept in motion? — Our notion of life and vital force is still too obscure and vague to be held steadily — we can not connect it with severe inductions from facts — we can trace the motions of the animal fluids, as Kepler did the motions of the planets; but like him we can not render a reason

for the motions — yet the future is rich in promise — The idea of vital force may gradually become so clear and definite as to be available in science — And future generations may include in their physiology propositions elevated as much above the circulation of the blood as the doctrine of universal gravitation transcends the explanation of the heavenly motions by epicycles.

But we have not yet reached those elevated principles, we do not yet know the laws of the animal system — And if we do not its laws in a state of health, how can we hope to comprehend in what disease consists? Or how it works its disastrous changes?

The causes of disease are manifold — Some of them we know and some we do not know Sometimes we have a clear and definite idea of the cause as is seen in variola — But in no case can we trace the connection between the cause and effect which follows — We do not see any necessary and natural

relation between them — we call them causes simply because certain effects or results follow them — more often the cause is vague and uncertain or wholly unknown — as is seen in those familiar diseases typhoid and intermittent fever — we hear much indeed of malarial and epidemic atmospheric poisons, and constitutional diatheses; but we can only regard these terms as a convenient cloak under which the learned attempt to conceal their ignorance of cause wholly unknown — I need but refer you to that scourge of our northern latitudes, pulmonary consumption, which has made itself familiar by its presence in almost every family, and has filled with its victims, the church yards which whiten the green hill sides of New England, to show you how little we know of the causes of some of the most common diseases, and also how powerless we are to heal — Influences arising from climate, from poverty, from occupation,

from locality, from luxury and other external sources are no doubt often malign, and serve powerfully to develop disease — But the cause which determines what the disease shall be which is developed lies further back and is unknown — Should we ever come to know and estimate the power of all external influences in producing disease; and understand the physiological action of remedies used in healing them — Still there would remain one influence potent for evil, whose power we could never know, which would forever modify and defeat our expectations in the practice of the healing art — I refer to that taint of blood and constitution which is the heritage of most children of the present age — Connected defects and peculiarities, whether of body or mind or of morals are liable to be transmitted and reproduced in the next or some succeeding generation — The child may inherit the parents, form, likeness, character, disease or even his habits and vices — And this

influence is very powerful for evil we are but to well assured; for we can call to many families laid waste and made desolate by this scourge of an ancestral origin — What latent seeds of death it has implanted in our systems; what modifications it has wrought in our constitutions, how much it has depressed the powers of life we can never know — We must remember that we are each of us the last link of a chain which stretches back through all the ages, up to the common father of our race — We belong to families which are very old and therefore honorable, as old as those of princes and nobles. And if we knew their histories better, they would be found to be, nonetheless, quite as respectable as any of our neighbors — But it must be confessed that we know nothing of their members except the first and a few of the latrons Did we know the story of our families, we should, no doubt, find many in the line of our descent whose fame would no serve

greatly to increase our family pride. Perhaps we should find occasion to say with the poet Burns, "Our ancient but ignoble blood has crept through scoundrels ever since the flood"

We may be sure that our ancestral line has always been under influence, whether of climate, of poverty, of oppression, of luxury more or less unfavorable to the transmission of healthy and vigorous constitutions. These degenerating influences being so potent and so long continued, it may seem strange that there is still remaining so much vigor and power in the average human constitution. But we must not forget that there is in our nature a powerful recuperative principle which is always striving to bring back our constitutions to the ideal type and standard of our race. When destructive influences are so powerful as to overcome this principle or to hold it in abeyance, then families and races of men decay and become extinct. The poor, the humble, the toilers

of the soil, upon ~~the~~ ~~classes~~ whom deteriorating influences fall least heavily, are the classes chosen of God to perpetuate the human race from age to age — Although the past has not been able to tell us what disease is; nor to explain the mode of its cure, still it has not been idle — It has carefully studied the diseases "to which flesh is heir", noted their courses, results and peculiarities; pointed out their differences and distinguished the curable from the incurable; observed the modifying and healing power of remedies, so successfully that we feel as familiar with many of them and the remedies used to heal them as we should did we know their causes and the physiological of those remedies

Our Knowledge consists of the experience and contributions of past ages. And although it gives us no great physiological principle it is still inestimable value. So rich are the stores of the past, so abundant its experience and [illegible] that the physician who is in possession of its treasures can hope successfully to respond to the appeal which suffering humanity is [illegible] putting up for relief. —

And to you gentlemen of the Family, to whom we are so much indebted for unfolding to us so faithfully and so clearly the teachings of the past, and have put into our hands the key by which we can understand the [illegible] of disease and their modes of cure, we desire to express our deep sense of obligation and respectful regard — We thank you for your courtesy and kindly interest ~~[illegible]~~ which have ever manifested for us — We cannot leave you without feeling deep regret that the period of our daily intercourse with you is over — May many successive classes rise up

to add their great pal Tributes to ours and may the growing prosperity and fame of this mean school of medicine be the evidence which the medical profession shall have of your life long and self sharing devotion to its interests —

From you sir the venerable Nestor of the American Medical Schools, who ~~[illegible]~~ for more than fifty years, have discoursed so eloquently upon the construction and diseases of the human and for more than twenty five years have taught successive generations of students how to put to flight the many a human ailments, by the aid of that potent instrument the surgeon knight; we can not part without speaking of the great pleasure we have enjoyed in being permitted to sit under your instruction. Your colleagues in office will pardon us, we are sure, when we express to you personally, in this public manner, the affectionate regard and admiration we have learned to cherish for the nobility of your character and the purity of your life, as well as for the scientific accuracy and eloquence with which you have set forth the teachi

So graphic and forcible have been your descriptions of the use of the instruments with which the Surgeon encounters the hydra headed monster, disease, that they have almost come to be familiar to our hands, we have enjoyed a privilege which but few unwilling classes will be permitted to share — It will be a sorrowful day to the friends of this School of Medicine when you shall be compelled to lay down the mantle of your office — But it will be some consolation to them and to your many friends who throng the benches of the profession, if they shall be permitted to possess in the permanent form of the printed page the lectures they have heard from your lips —

We bid you gentlemen of the Faculty one and all a respectful farewell —

My Classmates — These exercises finish the usual Course of medical Study our daily visits to this place, continued through so many months, are over — Pleasant associations and friendships have sprung up here which will be cherished among the pleasant

memories of future years — We have thus far studied the problem of health from a theoretical stand point; but hereafter we must give a practical solution, in the various cases that shall be presented to our care — And then we shall have need of all the skill & knowledge we have acquired — We shall find many elements of the problem unknown in every case and shall never be able to tell in any case, how much the constitution has been impaired by hereditary taint or by the ravages of disease — Sometimes we shall save when hope is lost, and sometimes loose when little expected — But with all these uncertainties and difficulties to contend with, if we possess that nobility of character and purity of life so well illustrated in the example refered to in this address, are in possession of those treasures of knowledge which are within the reach of every earnest student we need not fear the responsibilities of professional life — Integrity and ~~which~~ purity of ~~life~~ adorn every condition of life but they are a necessity for the physician who expects to find access to that sacred retreat the fire side of the pure and the good —

such a character, leavened with the saving influences of the Christian hope is the best and the least preparation with which [illegible] willing to enter upon the duties of life —

Let us go forth then from this place determined to be good men and earnest students for life and we [illegible] in the highest and best sense of that term, whatever fortune may await us in the future — It will be pleasant to hear of each others success in a material point of view, but it will be better still to know that our lives are exerting an influence only for good —

I lie you and affectionate [illegible]

A Treatise

on

Puerperal Fever

By

George W. Beach

of

Montrose Pa.

Gentlemen of the Board
of Medical examinations.

Having had the honor of attending the past course of valuable medical lectures delivered in this institution, it now becomes my duty, as a candidate, for a degree of Doctor of medicine, to write, to offer, and defend, a Thesis, on some medical topic, and, as such topic, Gentlemen, I have chosen Puerperal Fever.

Puerperal Fever, is a disease, peculiar, to lying-in women.
And, is one of the most serious maladies, to which, they are subject. There is, no disease, which claims the attention of the profession, more than this. There is, perhaps, no malady, to which the human body is liable, more painful, more distressing, and fraught, with sadder results.

This disease is not of rare occurrence. Neither, were the earlier writers, strangers to it; for, Hippocrates makes mention of, and discusses it, as a disease, principally arising, either from a suppression of the lochia, an inflammation of the uterus, or retention of the milk, or, from some other complaint, peculiar to the uterus. This, has been, the general opinion of authors, from his time, to the present.

It is known to prevail epidemically, and more so, during the winter, than summer months. It attacks all classes; but is found to be more prevalent, among the poor, and, in our lying-in hospitals.

Many, of our able writers, upon this subject, assert with a great degree of confidence, that, it is a contagious disease; while others, of equal ability, as strenuously, deny that it is.

This matter should be weighed well; for, if contagious, the profession ought to be aware of the fact, that, may be, a due guard against the fatal consequences, which, might, otherwise, ensue.

However, I shall not speak of this important subject, but, proceed to the symptoms.

Symptoms:- They, will vary, as, does the character of the epidemic. Sometimes, previous to, but, usually, not until two, or three days, after date, the patient is seized with rigors, pain in the anterior portion of the head, has a rapid, full, hurried respiration, thirst, heat of skin, nausea and vomiting; which, generally continues throughout the disease. At first, the matter ejected, is the contents of the stomach, mixed with mucous; in a later period, bilious

matter is voided; and lastly, green, brown, and black fluids, constituting, what is called, the "coffee ground vomit."

Not unfrequently, the irritation, extends to the intestinal canal, and diarrhoea, is the result.

Pain in the abdomen, now manifests itself, which, is, at first, slight, or severe, continuous, or in paroxysms. After the remission, the pain returns, with redoubled violence.

As the inflammation advances, the pain becomes severe, and upon pressure, exquisite: so that, the patient can no longer bear the weight of the bed-clothes; and lies upon the back, with the knees drawn up, to avoid the pressure, and tension of the parietes.

The patients, loose all interest in their infants. The milk, is suppressed, and the breasts flabby; the tongue furred usually moist: sometimes, dry, and brown.

The countenance, is very much changed; the features, drawn upward, and expressive of great anxiety, and suffering.

The intellectual faculties, are rarely affected; the pulse varying from 100, to 160 per minute.

The urine, is scanty, turbid, passed with difficulty, small in quantity, which, upon standing, becomes of a red, brown, or yellow color; and, deposits a curdy sediment at the bottom of the vessel.

The patient, has very little appetite, no profound natural rest, the slumbers disturbed by frequent moanings, and subsultus tendinum.

Sleeps with the eyes and mouth half open. The stools, are dark, slimy, clotted, very fetid, often froth and ferment like yeast.

A crimson patch, like a hectic flush, is sometimes observed, on the cheeks and is, an unfavorable symptom.

Morbid Anatomy.— The peritoneum covering the uterus, usually exhibits signs of inflammation. The mesentery, mesocolon, omentum, ovaria, and those parts of the intestinal canal, which are in contact with them, are often found, in a state of high inflammation. Frequently, supperation of one, or more, of these organs, is found to have taken place, and lymph, poured out into the cavity of the abdomen. In a few cases, the inflammation is confined to the uterus, and its body found in a state of decomposition.

More or less thickening of the peritoneum is usually found to have taken place. Pus, and serum, not unfrequently, are effused into the cellular tissue of the membrane under the peritoneum.

Lymph, and puriform matter, are also found eliminated into the pelvis, around and behind, the uterus,

Diagnosis:- 1. From after pains, or hysteralgia.— Many times these affections present themselves, in such a form, as to render the diagnosis, by no means, easy at first; and, our treatment should be arranged, so, as to err, (if we be in error) on the safe side.

However, happily for the patient, these affections, occur soon after labor, and diminish, or disappear, about the period, when puerperal fever usually makes its appearance.

After-pains, are accompanied by a peculiar contraction of the uterus, which, is not the case, in puerperal fever.

The abdominal tenderness, in after-pains, is not severe, except, during a pain, and it goes on decreasing; and, in puerperal peritonitis, it rapidly augments. Sedatives, have a powerful influence, over after-pains, but, not so, in the fever.

The effect upon the constitution, is much more decided in puerperal peritonitis, than in hysteralgia.

2. From intestinal irritation.— This affection, may occur at any period after delivery, and occasion some anxiety, from the resemblance of the symptoms, to those of puerperal fever. The abdomen, may become enlarged, and tense, from the secretion of air, but, may be readily discerned by percussion, from the enlargement by the effusion of serum. The abdominal pain is diffused, and does not radiate from the uterus, as in puerperal fever. The abdomen, is rarely ever tender upon pressure, and gentle friction, will afford relief.

3. From hysteritis.— In this, the patient can bear pressure very well, upon the abdominal parietes, until, we can feel the enlarged uterus, but, the slightest touch, in the fever, will cause acute torture.

continued next page

Prognosis.- The prognosis of puerperal peritonitis, generally, leaves but little to hope for; for, of all acute diseases, the plague excepted, puerperal fever, is, perhaps, the most dangerous.

One of our best writers on this subject, declares it to be equally as destructive, as the plague itself.

"The pestilence," he says, "like a fierce and untamed enemy, spreads his hostile banners in open day, and feasts on carnage and destruction, till glutted with slaughter, he himself sinks down and dies! But the puerperal fever, like a secret revengeful foe, stabs in the dark to the very vitals; and though he kills one only at a time, yet he is privately slaying every day, and never satiated, thus making up by length of time what the other does by a sudden devastation."

The prognosis, will depend somewhat upon the character of the epidemic, and,

upon the time the physician is called, for, There is scarcely any disease in the history of parturition, more deadly & more dangerous than in the puerperal state; and yet unfortunately, for the patient, there is no disease which is more apt to be neglected, or treated with, or what is worse, injudiciously treated, the patient mistaking her complaint, for after pains, or some colic complaint, and the nurse thinking herself well skilled in these affections, & wishing to make herself generally useful, commences active treatment immediately, by pouring into her patient, copious quantities of hot spirituous waters, and medicines, covers her up head and ears, with additional bed clothes, draws and pins the curtains around the bed, makes a large fire, stops every crack & crevice, even to the keyhole, guards the windows, not only with shutters and curtains, but even with blankets, and

the good woman, is not allowed to put her arms, or even her nose out, for fear of catching cold. Her whole diet, consists, of large quantites of warm liquors, supplied her out of the spout of a teapot, to keep up perspiration and sweating.

The favorable symptoms are, a diarrhoea commencing early, especially if, the tumefaction of the abdomen, be thereby diminished, the pain relieved, and the pulse rendered slower.

A gentle moisture of the skin, a flow of milk to the breasts, a plentiful discharge of the lochia, erysipelas on the extremities, abscesses indifferent parts of the body, and the patient able to turn herself in bed, are all favorable signs.

Unfavorable symptoms are, a very quick pulse, violent pain and tension of the abdomen, labored respiration, violent rigors, progress of the disease rapid, dry

Tongue, delirium, black vomit, black stools, a circumscribed crimson patch on the cheeks, cold, clammy sweats, and cessation of pain, are all dangerous symptoms.

Treatment. Every physician, has his own peculiar mode of treatment.

Dr Gordon considers venesection, to be a specific, if performed within six or eight hours, after the attack, and the required amount, of blood taken.

Others, recommend the plan of putting the patient in an upright position, and, not bleeding to complete syncope.

The mercurial plan of treatment, is adopted by some, as the treatment.

However, the character of the epidemic, should be our guide in the treatment.

In puerperal peritonetis, a few ounces of blood, may be taken, from the arm, and, if the pulse is there rendered slow er, and stronger, venesection may be

continued, until full depletion is produced, after which, ten grains of mercury, with, or without opium, may be administered, every three, or four hours, until, the mouth is affected, or a decided impression made upon the disease.

Mercurial frictions, are a valuable mode of affecting the system.

Leeches, applied to the vulva, and abdomen, are often very useful.

Opium, may be used freely, in large quantities. Purgatives, combined with Dover's powder, hop, or nux vomicas, are often very beneficial. When constipation exists, an enema, of turpentine, and castor oil, will be needed. Some, have been highly delighted, with the effect of turpentine used, internally.

On the latter part of the disease, blisters may be applied to a part, or a whole, of the abdomen, and dressed with mercurial ointment.

Emetics, are recommended, but only in the earlier part of the disease, and should be avoided at a later period, as they will only serve to aggravate the symptoms. Most physicians of the present day, renounce their use entirely.

Warm injections, are highly recommended by some, but the pain caused by moving the patient, is, an insurmountable objection to their frequent use.

When there is much serous effusion, diuretics may be prescribed, or tapping may be resorted to, if the fluid is not absorbed.

Should the patient's stomach become so irritable, as not to allow the retention of food in it, the irritation may be allayed by effervescing draughts, containing a few grains of carbonate, or, by a few grains of the muriate of potash.

There are many cases of puerperal peritonitis, where an opposite, or tonic and supporting mode of treatment will be indicated.

In puerperal hysteritis, the patient usually bears bloodletting, better, than in other forms of the fever.

Sixty or one hundred leeches, may be applied, over the uterus, followed by constant poultices and fomentations.

Calomel, and opium, may be used largely, in this form of the disease. The bowels should be kept free, by gentle laxatives, and all active purgatives avoided.

In malignant puerperal fever, all remedies will be of less avail, and in the majority of cases, venesection is inadmissible, and usually, positively injurious.

Calomel, and opium, in large doses, would appear to be our sheet anchor, in this form of the disease. The application of the tincture of iodine, over the abdomen,

is thought to exercise a beneficial effect.

The spirits of turpentine, given in doses of from two drachms, to half an ounce, once or twice a day, sometimes exerts a beneficial effect.

The tonic, or supporting treatment, will usually be found the most efficacious.

The prophylactic measures to be taken, consists, in removing recently delivered women, from the influences of the causes which produce the fever.

The patient should be kept cool, and her friends, not allowed to visit her too frequently. Personal, as well as general cleanliness, strictly observed.

When the disease occurs in a hospital, the patient should be seperated from the others, with seperate attendents, and, before the ward is used again, the bedding should be burned, & the ward well secured and ventilated.

By Ferdinand Beach B.A.

The insidious approach the wide spread ravages and the almost hopeless character of Phthisis Pulmonalis conspire to render it one of the most interesting subjects to the medical student and a fearful foe to human life. Hence it has attracted the earnest attention of many eminent men in the profession and by their labor great light has been shed upon its pathology and treatment although there are many things connected with it that are obscure. The disease manifests itself by an accumulation of solid matter chiefly in the vesicles and small air-passages of the lungs obstructing respiration and for the most part gradually increasing until that vital organ can no longer perform its functions. Of its causes we know very little except that they exist in the blood constituting what is called the strumous

diathesis often arising spontaneously, it were and frequently transmitted by parents to their offspring. As all the parts of the body are dependent for nourishment and growth upon the blood these tubercles must be a result of some change in the normal condition of that vital fluid either in respect to quantity or quality or both. It is true that those who suffer from phthisis usually manifest changes in the quantity of blood both local and general. Thus large quantities of blood are thrown off from the lungs by haemorrhage when in the course of the disease they become congested. Here are obvious quantitative changes in the blood local hyperaemia and general anaemia but they follow the deposit rather than precede it they are one of its results rather than its cause. For many have died from some other cause in the incipient stage of phthisis with no symptoms of anaemia and tubercles have been found on them without any trace of inflammation or congestion

The deposit of tubercle then appears to be caused by some change in the quality of the blood. The most apparent modification in the blood of phthisical patients is a small proportion of red corpuscle but the same circumstance exists more or less in chlorosis without any tendency so far as we can discover to tubercular deposit. The proportion of fibrin is increased but this is invariably the case in inflammation and as the inflammation in phthisis is a result of the deposit this increase of fibrin cannot be regarded as the cause of tubercle. But although the deposit of tuberculous matter may occur without inflammation yet it seems to proceed much more rapidly when once this process has commenced in the diseased lung and this fact leads to some important considerations of the treatment by which we can obviate the tendency to inflammation or diminish it when once begun we may

retard the morbid process. We want to [illegible]
this by depletion but the blood being already
deficient in red corpuscles we should in this
way only remove it further from a healthy
condition. Mercury has been faithfully tried
and experience fully proves that it is a
dangerous agent in the different forms of
stroma. But if the conditions of the case do
warrant us in the persevering use of blood
purging and mercury the three great remedies
for inflammation perhaps we might by
the influence of a warm climate produce the
desired effect. Some have considered a warm
climate almost a specific for this disease
and many have held extravagant notions on
this subject that experience has failed to
confirm while on the other hand some are
inclined to go to the other extreme because
the change of climate has often failed to remove
the disease. We know that cold air has a double
tendency to arterialize the blood and cause
internal congestions because it contains

a large proportion of oxygen and [illegible] are applied to the surface exercise an [illegible] influence upon the capillaries and thus [illegible] the blood into internal organs. [illegible] on the other hand causes venosity of the blood and promotes the capillary [illegible]

We might expect then by sending a phthisical patient to a warm climate to a [illegible] the progress of the disease by relieving the tendency to inflammation. But in fact much more than this is sometimes accomplished by the change; for in some instances the tubercles cease to grow those that have been deposited are absorbed ~~are~~ replaced by calcareous matter and the patient is freed from all symptoms of the disease. It is true that very many of those who go to warm climates do not recover but I think that in a large proportion of cases the change of climate is kept as a last resort and by the time the trial is made the disease has advanced

so far that the organs of respiration digestion and assimilation are deranged and disorganized beyond repair. The deposit of tubercle is often checked by the use of internal remedies as well as by the influence of a warm climate. Among these cod-liver oil is by far the most reliable. Dr Wood says of this agent I believe that if used before tubercle has been deposited (produced) it will not unfrequently prevent it; that even after a moderate amount has been deposited it will sometimes arrest its progress and ultimately save the patient; and that it may in some few cases even in the advanced stage of the disease and after cavities have been formed rescue from death if the quantity of tubercle already existing be not sufficient to fatally disorganize the lungs. Of this I have no doubt that if begun with early and used perseveringly with the aid of other measures calculated to invigorate

the general health it is capable of very considerably diminishing the amount of mortality from this fearful disease. Numerous other practitioners speak in equally high terms of cod-liver oil and as a popular remedy it has a high reputation. Although it probably owes its efficacy in part to the fact that it is easily assimilated and passing into the blood with little change replaces the absorbed adipose tissue there is a strong probability that it has a tendency though in a different way to produce the same effect as a change from a cold to a warm climate that is a nervous condition of the blood. For the carbonic acid exhaled by respiration is replaced by oxygen which is conveyed to every part of the body to assist in that process part of disintegration which is a necessary result of nervous and muscular exertion. But oleaginous

matters abound in carbon and hydrogen with a very small proportion of oxygen and passing into the blood their superabundance of carbon and hydrogen probably combine with the oxygen. The tendency then of an oleaginous diet is to produce venosity of the blood or what Carpenter calls "the bilious diathesis in which through the insufficient elimination of the hydrocarbonaceous matters the blood becomes charged with the elements of bile". There is good reason to believe that this fact explains the remarkable immunity from phthisis among the Icelanders; for they are surrounded by circumstances that are usually considered most favorable to the development of the disease while their food consists largely of oleaginous substances or even crude oil. Now these facts that cod-liver oil possesses such unquestionable power over

the tuberculous diathesis and that communities subsisting chiefly upon an oleaginous diet are free from the disease furnish a strong presumption that venosity of the blood is incompatible with tuberculosis. But there is another class of remedies only less efficacious than cod-liver oil in the treatment of phthisis; I refer to the alcoholic stimulants. On this subject Dr Wood remarks that physicians have often noticed that drunkards seldom die of phthisis and that in his hospital duty he meets with great numbers of drunkards and tuberculous subjects, but that the two classes rarely coincide. The results of his observations have been confirmed by the investigations of others. Dr Ogston examined one hundred and seventeen cases of persons who died confirmed drunkards and in only two of them did he find any evidence of tuberculous disease of the lungs. In

one of these there were some latent tubercles and in the other a single cornica, but in neither was tubercle the cause of death. Besides this cures of the disease have been effected under the free use of alcoholic liquors. The question then arises does the habitual use of alcohol change in any respect the quality of the blood. On this point there can be little doubt for that it is absorbed is proved by its rapid disappearance from the stomach and its odor in the breath. Like oil it is a hydrocarbonaceous compound with a small proportion of oxygen and like that probably yields a part of its carbon and hydrogen to the oxygen of the blood thus rendering it venous while it indirectly contributes to the same result by forming oil with the albumen. From these considerations it would appear that cause of the blood or the causes that produce it are incompatible with that [illegible]

vital fluid which leads to the exudation of tuberculous matter. But the subject is yet enveloped in an obscurity into which the light of science sends only here and there a ray. Certainly it is the duty of every physician who is an earnest seeker for scientific truth to be biassed by no pet theories to be disheartened by no obstacles and to study how to bring yet the resources of his profession to bear upon this scourge of mankind. Such an one has for his encouragement the knowledge that by a judicious use of the experience he may very often prolong the lives and promote the comfort of the afflicted and not unfrequently perhaps restore them to health. And not only this but the consciousness that if he can help to discover any means of checking the progress of this great Destroyer of life he will be amply rewarded for a life of toil and will merit the lasting gratitude of the race

Chronic Dysentery of the United States Army.

A Thesis

Written for Graduation,

Yale Medical College.

Jan. 13th 1864.

By W. Lockwood Bradley

Camp Dysentery

Army Surgeons do not differ in regard to the nomenclature of this disease; some denominating it by the above title, while others select the term Chronic Diarrhoea. Dr. J.J. Woodward in a recent work on "Camp Diseases" argues in favor of the latter, that this affection differs from any type of Dysentery now known. On the other hand, it may be answered with equal force, that as a Diarrhoea it differs from any known type. Besides the term Diarrhoea is objectionable, because it considers as essentially the disease what is the most attendant on or as expressed by Dr. Wood, (Practice Med. Vol. 1. p. 642.) "a consequence of certain pathological conditions"

Again this affection may be

sligher Camp Dysentery because its presents features entirely distinctive from the Dysentery occuring in civil practice. In the latter, the seat of inflammation is the colon especially the rectum, giving rise to small mucous or bloody passages, griping pains in the abdomen & tenesmus. On the other hand Camp Dysentery, is rarely if ever attended by any of these symptoms as we shall see hereafter the inflammation is not confined to the colon & rectum, but extends into the ileum.

Symptoms.

In the large majority of cases the commencement of this disease can be traced to a simple initative diarrhoea; not unfrequently however, the symptoms may indicate the existance of malarial poisoning or a scorbutic taint. Sometimes the

presence of the chronic condition will be indicated only slight attacks of diarrhoea, followed by apparent recovery when the disease is fairly established, there is gradually increasing emaciation, attended by debility & loss of spirits. The countenance is often of a dirty yellow; the heart irritable, with pulsations from 85-95. per minute & the capillary circulation excessively sluggish. The tongue is pale & swollen, but moist; the appetite is either unaffected or morbidly keen to within a few days prior to death.

The evacuations from the bowels number as a rule from three to six in the twenty four hours. In the early stage, the discharges though liquid are of the normal color, but as the affection progresses, we may have the black color of altered blood or even mucous & pus. In some cases the microscope

has discovered intestinal epithelium. Usually there will be tenderness over the right iliac region.

If now the disease is allowed to proceed unchecked, in from four to eight weeks, as the case may be, we shall have presented to our gaze the second stage, which in the vast majority of cases, is the stage of collapse.

The features are pinched; the eyes red, congested & sunken; the cornea, commonly at its lower margin, becoming ulcerated; the skin covered with bran-like scales, hangs loosely over the wasted muscles; the tongue has assumed a dirty dark red appearance, aptly compared to raw beef; the pulse is more frequent, ranging from one hundred to one hundred & twenty per minute & even higher. In the extremities there is almost complete stagnation of the capillary circulation. & the natural heat is so far diminished

that the patient complains of coldness. The voice is feeble thinkey, approaching the choleric. This condition continues for a longer or shorter period, when suddenly the diarrhoea ceases, the tongue becomes dry & the patient dies by asthenia.

Anatomical Characters

The characteristic lesions of Camps Dysentery are to be found in the small intestine & colon, particularly in the latter. Usually the duodenum & jejunum will present simply an enlargement of the solitary follicles. On the other hand, the mucous membrane of the ileum, especially near the ileo-coecal valve, is thickened & often softened. The color of the membrane shades from a dark red above to a dark green below; the solitary follicles & the patches of Peyer are almost always enlarged & the locality of the former is made more palpable

by the presence of pigmentary deposits.

The lesions of the colon are more extensive & more constant, the thickening of the mucous membrane may in extreme cases be even more than a quarter of an inch. The condition of the solitary follicles is similar to that stated above & the ulcers originating at this point vary in size from that of a pins head, to vast erosions nearly the size of the palm of the hand. There is in the Army Med: Museum a specimen of perforation, nearly half an inch in diameter, but cases of this kind are exceedingly rare.

Histology

The following is a condensed account of Histological observations recently made public by Dr. J. J. Woodward "Camp. Diseases in U.S.A". p. 246.

In the simplest cases when the mucous membrane is more or less

thickened & softened. There is a luxuriant cell multiplication within the normal connective tissue cell, & this is especially marked in that part of the tissue situated between the tubular follicles. The epithelial lining of these follicles, is likewise found crowded with rounded granules. The same is true of the closed follicles & in a large number of cases ulceration appears to originate in the rupture of one of these follicles & the discharge of its softened contents into the intestinal cavity.

In addition to the intestinal lesion a morbid condition of other organs is not unfrequently observed.

Various observers have noted that the kidneys are enlarged, but their color lighter than natural & their specific gravity diminished. A longitudinal section reveals under the microscope more or less disproportion between the secreting & tubular structure — the former encroaching

upon the latter. In some cases the tubules are more or less obstructed with granular epithelium.

Prognosis

Statistics of comparative mortality reported to the Surgeon General in Apr. 1863. (Am. Med. Times Apr. 4th. 1863.) would seem to indicate that Camp Dysentery though a serious is yet not a very fatal disease. Out of 18.452. cases occuring in the U.S. Army during the year ending June 30th. 1862. 517 or 3 per cent proved fatal. In a more recent publication the compiler of these statistics expresses the opinion ("Camp Diseases" p. 233.) that the mortality is greatly underrated, for the reason, that patients reduced by this disease, not unfrequently perish from some intercurrent inflammatory attack & then the death is reported under that head. In support

of this view I would cite the following Reports.

"The number of deaths from Camp Dysentery occuring at the Mt. Pleasant Hospital (Was. D.C. during the month of Dec. 1862 equalled those from all other causes combined, gunshot wounds alone excepted. (Med & Surg. Rep. Aug. 8th. 1863) Again of one hundred & thirty two cases recieved at Bellevue Hospital on the 3d. & 5th. of Oct. 1862. 34. per cent proved fatal (Am. Med. Times Feb. 28th. 1863)

"The probable ifsue in any given case, may be judged of by the circumstances & progress of the malady. All writers seem to agree that recoveries from what has been described as the 2d. stage are exceedingly rare. Certain it is, that recoveries are slow & accompanied by a tendency to relapse, due no doubt to a continuance

of the thickened state of the mucous membrane. A certain proportion of cases are complicated by the supervision of Bright's disease of the kidneys. Prof. Alonzo Clark commenting on cases occurring at Bellevue Hospital states (Med. & Surg. Rep. Jan. 10th 1863) "that in all the bad cases, casts were found in (the urine) but no albumen"

Nature

From the account given above it will be seen that the lesions of Camp Dysentery & Typhoid Fever are almost identical, but the relation which the pathological condition holds to the disease are in the two cases quite distinct. Although we are in the dark with regard to the true nature of Typhoid Fever, just as we are in respect to all fevers; still the great probability is, that the proximate cause resides in the blood

that the glands are affected secondarily, constituting says Dr. Wood (Practice Med. Vol. 1. p. 352) "a sort of internal eruption like that of small pox upon the skin"

Camp. Dysentery on the other hand, consists essentially in a chronic inflammation of the colon & ileum, accompanied by disease of the mesenteric glands, & the blood is secondarily depraved, because the nutriments must pass through these structures in order to reach the circulation. The blood is further ~~deprived~~ deteriorated in quality by poor food, poor ventilation & the like; Hence any

Treatment

to be successful must be both Hygienic & Therapeutic. The former should comprehend not only proper Ventilation & Cleanliness, but also food, nourishing in its quality, easily digested & which leaves the smallest amount of residuary matter

Milk, Beef Essence Nourishing broths have been preferred. Cod Liver Oil has been tried with some success, but usually the stomach has rejected it.

The Therapeutical Treatment has the double purpose 1st. of improving the quality of the blood by Tonics & 2d. endeavoring to arrest the progress of the inflammation; with reference to this last indication we have consulted numerous Surgeons & Reports & find that almost every medicine is mentioned either with disrespect or very sparing commendation. Among those enjoying the greatest degree of confidence are the following. Nitrate of Silver, dose from one-eighth to one-quarter of a grain; Sulphate of Copper one eighth of a grain. Both of these may be given in pill every two hours combined or uncombined with Opium. The treatment finally settled upon at Bellevue Hospital, was the Sol. of

the Nitrate of Iron, 10. drops from four to six times a day with Opium. The subnitrate of Bismuth has been used extensively in Washington Hospitals in doses varying from five to twenty grs 3 or 4 times a day. Ar Mc. Kim's U.S. Hos. Balt. acid. Muriatic dil. was successfully employed. For the purpose of stimulating the relaxed muscular system, the Ext. Nux Vomicae has been given in dose of half a grain to a grain 3. times daily. Nearly all the astringents have been applied locally in the form of enemata. Asst Surgeon Hartsuff U.S.A. injects 3 times daily a Sol. of Argenti. Nitr. from 5–10 grs to the ℥j.

In conclusion it may be remarked, that as the disease is peculiarly slow & tedious, so nothing but painstaking & patient trial of remedies can be crowned with success.

Stricture of the Male Urethra

January 1864. F. A. Bacon

Stricture of the Male Urethra.

By the term Stricture is meant a diminution of the calibre of the urethra either of a permanent or transient character. The urethra extends from the neck of the bladder to the anterior extremity of the penis. In its passage from behind forwards it passes through the triangular ligament of the perineum and then runs along the groove on the under side of the penis enveloped in a layer of spongy erectile tissue.

The urethra may be divided in Surgical purposes into four portions viz- The Prostatic. Membranous. Bulbous. Spongy. The Prostatic portion begins at the neck of the bladder and passing through the substance of the Prostate gland extending forward for a distance of an inch or an inch and a half. It is seldom that we find a Stricture in this portion of the urethra. Ricord

Hooper mentions one case of this kind and some of the English surgeons give an account of one or two cases. The membranous portion so called on account of its structure extends from the prostate gland to the bulb. it is the shortest and narrowest part of the canal its length being about ten or twelve lines and its diameter not more than three or four. Next comes the bulbous portion about one inch in length and midway in size between the Prostatic and spongy portions. The remaining portion the spongy extends from the bulbous portion to the meatus where it terminates in a narrow slit like orifice. This is the narrowest and least dilatable portion of the canal. Stricture is generally divided into two classes. the transient and permanent. the first depending upon a spasmodic contraction of the tube is known is known by the name of spasmodic stricture

at last only a short time is paroxysmal in its nature and generally disappears as suddenly as it came. the latter on the other hand is caused by an effusion of lymph into the lining membrane and cellular tissue of the urethra when a portion of it remains and finally becomes organized. this is organic or permanent stricture. Organic strictures are divided into simple and complicated, partial and complete, dilatable and undilatable, common and traumatic, recent and old. these terms explain themselves. there seems to be a great diversity of opinion among authors in regard to the seat and number of strictures. no part of the urethra is entirely exempt from them it rarely occurs in the prostatic portion but is most frequently situated at the membranous portion of the canal just behind the bulb. Strictures vary much in number generally there is

but more frequently there are two. John Hunter mentions a case in which he found six. this of course was an exceptional case. these may be found near together or separated by a considerable interval. the most common form of stricture is that in which the urethra appears as if a piece of tape were tied around it. it is not always circular but often oblique. it may embrace the entire circumference of the canal or only a part of it and vary in its diameter from a line to three or four inches. A rare form of this affection called the valvular stricture is described by Sir Charles Bell. in this variety the urethra is obstructed by a small membranous band stretched across the canal from side to side. the contracted part may be soft and elastic or hard and firm according to its duration and the degree of organization of the

lymph upon which it depends. recent
stictures are generally soft and yielding
old stictures on the contrary are generally
hard and resist treatment this rule is
not however absolute. Organic stricture
is generally of a grayish or whitish
appearance contrasting strongly with the
rosey hue of the mucus membrane.
The genral symptoms of stricture are
diminution of the stream of urine
which frequently is forked or twisted.
frequent and difficult micturition
accompanied by a sense of scalding.
the genral health is frequently affected
Sometimes slightly Sometimes severely.
In chronic cases there is apt to be derange-
ment of the digestive organs and exposure
to cold or a debauch of any kind is apt
to be followed by an increase of the diffi-
culty. another Symptom of stricture and
Sometimes the only one is a thin whitish
discharge from the urethra resembling

glut. this reaction proceeds from the mucous membrane of the urethra which is generally in a state of inflamation both before and behind the obstruction, the urine is altered according to the degree of inflamation of the bladder, the ureters and the kidneys. when these organs are diseased as they often are in the latter stages of the disease they secrete an increased amount of mucus which changes the color of the urine and sets up new chemical affinities. although the symptoms which have been enumerated generally denote the character of the disease they are often all rather positive than negative, in order however to make an absolute diagnosis in any case an exploration of the urethra is necessary this may be effected by a common silver catheter passed down the urethra to the obstruction or a bougie may be used for the purpose. great care should

be obsend during this examination otherwise spasm or irritation may be caused which will add to the existing difficulty. When the stricture is in the spongy portion it can often be felt by the fingers on the back side of the penis on account of the part being hardend and contracted. Stricture seldom exists long without going rise to disease of the associated parts, the organs besides the urethra which are most likely to suffer are the bladder, the ureters and the kidneys, and the affections which arise on account of this obstruction are often of a serious character and add greatly to the difficulties and danger of the case. One of the most serious complications depending upon stricture is a dilitation behind the obstruction. This is owing to the force with which the urine is driven against the stricture during the efforts at micturition, and it varies in size from a slight increase in the calibre of the tube to that of a pouch as large as a hens egg. The walls of this

dilated part are so diminished in thickness by the pressure thus frequently brought to bear upon it that they frequently give way and the urine infiltrating into the submucous cellular tissue gives rise to inflamation which may be followed by abscess or fistula in the perinæum. There are a few cases of organic stricture in which there is not more or less inflammation of the mucus membrane at and beyond the obstruction, the greater amount is commonly met with behind the stricture but it is not unfrequently found in front as well. It was formerly supposed that enlargement of the prostate was a common effect of stricture; recent observation however shows that when these affections are met with they are usually accidental. One of the most common comicidences in confirmed cases is hypertrophy of the bladder, this is the cause of the mucus discharge which forms so prominent a feature in stricture

The ureters and kidneys also join in the general disorder consequent upon the stricture and the cause of which is inflamation attended by a deposit of Lymph. One of the most common accompaniments of stricture in confirmed cases is an unnatural development of the penis. The organ not only increased in size but becoming thick and hard which must be occasioned not so much by irritation of the neck of the bladder as the frequent handling to which the part is subjected by the frequent efforts of the patient to promote the flow of urine through the obstructed channel. The causes of stricture may be divided into two classes. The traumatic and inflamatory. Of these the latter is by far the most common. Violence inflicted upon the urethra either from without or within may excite inflamation and so produce stricture. The particular kind of injury is generally a blow or a fall upon the perineum resulting in

a laceration of the membranes or of the sub-adjacent tissues. Strictures also may result from the bungling introduction of the catheter or bougie or a wound penetrating the canal may unite unevenly and so produce the disease. Gonorrhea is undoubtedly the most frequent of the inflamatory causes although not the only one. Whenever this disease is protracted or attended with considerable irritation it is almost certain to be followed by an effusion of lymph and consequent contraction of the urethra. Stimulating injection employed to early in this disease were frequently the supposed cause but at the present day when this disease and its treatment are better understood it is less frequent than formerly. Finaly stricture is sometimes brought on by chancres in the urethra this fact is especially spoken of by Ricord in his work on the venereal disease. When the stricture arises from this cause it is

generally situated at the anterior extremity of the urethra just behind the meatus urinarius. Prognosis. Stricture if attended to while it is still recent, before it has become hard and accompanied by any urinary complications generally yields readily to appropriate treatment. When however it is of long standing and accompanied by complications of the neighboring organs it is liable to be followed by the worst consequences. It may be stated as a general rule that a recent stricture is much more easily cured than an old one, a small than a large one, an inflammatory than a traumatic. A stricture of the membranous portion is harder to manage than one of the spongy because the former on account of its depth and the parts by which it is surrounded is harder to get at and less under the control of the surgeon. When a stricture is obstinate and of long standing it may so far

undermine the constitution as to cause death or the escape of the urine into the perineum or scrotum through an ulceration of the urethra thus giving rise to inflamation of such a degree as to cause destruction of life. When the renal or vesical complications are severe the brain may sympathize in the disorder, a slow chronic inflamation attended by coma be set up and the patient die from serous effusion. Treatment — Various methods have been devised for the permanent cure of stricture. Of these the most important are Dilitation. Cauterization. Incision and external division each of which is advised according to the ideas and customs of various surgeons. It is obvious it is obvious that these measures so opposite in their characteristics are not alike adapted to all forms of the affection hence it is necessary, to point out the

class of cases to which each is applicable.
In ordinary cases where there is not much
complication of the adjacent urinary
organs dilitation will be of itself sufficient
But where the stricture is hard and unyielding
either of the other methods may be employed at
the option of the surgeon. Before resorting to any of
these measures it is of great importance to
attend to the general health of the patient and next
to attend to any local inflamation which may
be present three or four days will usualy
suffice for this, to accomplish this object
the patient should be kept open by laxatives
or a mild enemata. The diet and secretions
should be regulated and any tendency to
to inflamation should it exist should be
remedied by antiphlogistic measures. The
proportion of cases by far which come
under the observation of the surgeon can
be efficiently cured by dilitation. Various
instruments have been devised for this
purpose the most common of which

are bougies made either of wax or gum elastic. bougies are straight or curved. Solid or hollow, flexible or inflexible, according to the particular case. If the stricture is situated deeply the curved instruments are preferable because they follow more closely the urethra, & solid instrument is introduced more easily than a hollow one although the latter possesses the advantage of being able to draw off the urine. A great many surgeons prefer the ordinary silver catheter with a conical point but this however is optional with the surgeon. In performing the operation the patient should be placed in the ordinary position for introducing the catheter. the instrument well warmed and oiled should be carefully introduced into the meatus and slowly carried down to the obstruction. In the most favorable cases the instrument can be carried directly through the stricture and

cure effected at one operation but dilitation is not generally performed in this easy manner. There is another method of procedure also more slow and gradual also more safe and free from suffering. The rule in this case is to proceed as gently as possible avoiding all risk of irritation commencing with an instrument that will readily pass the obstruction and using afterwards those of increasing size till a cure is effected the introduction to be repeated every third or fourth day until the result is obtained in this manner the treatment is continued gently and slowly for one or two months or until the disease is overcome. It is of great importance after the cure is apparently completed to introduce once a week a full sized catheter into the bladder. this tends to keep the parts dilated and thus repress any tendency to stricture which may occur. Cauterization in the

hands of John Hunter obtained a great reputation in the cure of stricture but at the present day except in France it is rarely used. it may used to advantage in cases in which the stricture is of a gristly character and in which there is an undue amount of sensibility of the mucus membrane. Nitrate of silver is the agent commonly employed for this purpose. The instrument used resembles an ordinary catheter with a cup like depression in the end in which is inserted a stylette. the cup is filled with soap or tallow [illegible] over by the salt. the instrument is carried down to the stricture fairly and then by pressing on the stylette the agent is pushed out against the stricture and retained there for about half a minute. this should not be carried to the extent of Cauterization for if so it would increase the stricture

but it is merely intended to act as a stimulant exciting the absorbent vessels of the part to action and thus removing the coagulable lymph. The caustic potash has been recommended by some high authorities but it is objectionable on account of its more violent action it should be used if used at all in the same manner as the nitrate of silver care being taken to apply it only long enough to produce its stimulant not its escharotic effect when however the stricture is very old and intractable or indisposed to yield to dilatation or cauterization internal incisions may be advised. Various instruments have been devised for this operation but the one most in use at the present time consists of a canula furnished with a stylette with a lance shaped blade this instrument is inserted with an ordinary catheter passed

down to the obstruction and through it if possible then by retracting the canula the lancet is drawn through the stricture dividing it, if the instrument cannot be passed through the stricture it is to be passed down fairly to it and the lancet then pressed steadily against the obstruction until it is divided. after this the cure can generally be effected by the use of the bougie. When the stricture is impermeable and when it is complicated with fistula in perineo external division may be necessary. this is one of the most difficult operations in surgery. the patient should be placed in the same position as for lithotomy a staff having been introduced into the urethra and passed down to the obstruction the surgeon makes the incision in the line of the raphe of the perineum

after the skin and superficial fascia have been divided the parts overlying the stricture should be cut through on the [illegible] staff the knife should be introduced into the urethra and the stricture divided towards the bladder. a catheter should then be passed into the bladder and the operation is complete. The difficulty in this operation consists in the fact that the urethra is not dilated but the walls lie close to each other and if it is at all turned out of its course it is almost impossible to find it.

Spasmodic stricture fortunately frequently cures itself and an operation is seldom necessary. it is however in persons who are subject to it by exposure to cold and moisture or excesses of any kind [illegible]

treated by relaxing agents. The warm bath and tartar emetic were the agents formerly employed but at the present time some of the anaesthetic agents commonly will relax the parts so that a catheter can be introduced and the difficulty overcome

Pericarditis

As its name implies, it a disease of the surrounding envelope or serous membrane of the great organ of circulation. It seems to be considered by most all writers a disease not commonly idiopathic, but following or complicated with Rheumatism or a result of it. Though usually referring to this disease yet it has sometimes been caused by blows or some other violence over the præcordial region. One other great exciting cause is that of Bright's disease of the Kidneys, which also causes dropsy in other tissues. Pericarditis has been discovered by numerous post-mortem examinations to be a great deal more common than once was supposed. Many bodies showing the remains of former effusions which had taken place sometime during the patients life, but which had been absorbed without perhaps the subjects knowledge, or there having been enough disturbance to attract his attention

to that particular organ. Slight effusions will often get well of themselves without any particular treatment but that which one would naturally do for himself when feeling slightly unwell, namely, rest, quiet and protection from any exposure.

The disease commences first with an inflammation of the pericardium, causing congestion of the capillaries contained within the subserous tissue. Following this congestion if it be not relieved is effusion into the serous cavity of the pericardium. I should have mentioned that during the congestion there is a lessening of the natural secretion, and consequently a dryness of the membrane. The fluid effused is sometimes serous only, or coagulable lymph, or as is usually the case a mixture of the two. If it is coagulable lymph alone it will at once cause adhesions or great thickening of

the membrane as the effusion concretes upon it. Where there is serum only the effect will of course be to dilate the sac of the heart in which the heart will move with more or less difficulty. This simple fluid is more easily absorbed than when it has the thicker admixture with it. When the usual effusion takes place, the lymph collects or forms upon both the membrane and the surface of the heart eventually causing adhesions while the serum dilates the cavity and has usually shreds of lymph floating in it. The fluid is of a yellowish or cream color, sometimes containing blood mingled with it. These latter (Dr Clark says) appearances occur in patients of a hemorragic diathesis, and often in those suffering from scurvy. In some rare cases there has been pus found.

The fibrinous matter is sometimes deposited over the whole surface of the heart but in others it occurs in separate masses. Its appearance has been by some writers compared to that of cut-sponge or to that produced by bringing in coaptation and then separating two layers of soft butter, or again to that rough interior of a calf's stomach. It is usually thickest upon the heart's surface. These fibrinous concretions being constantly brought together by the normal action of the organ, and perhaps absorption of the serum going on at the same time thereby lessening the separation, the surfaces finally adhere. If the serum had been entirely absorbed the cavity may be obliterated, and the false tissue become as it were a part of the heart's wall But as this is not always the case the membrane often itself has numerous

Cavitys in it in which the serum was contained. It finally becomes organized and blood vessels make their appearance in it. The first symtoms perhaps that the patient notices is that of palpitation and difficulty of breathing on going up stairs, some difficulty or unwillingness to lie upon the left side, pain over the heart which is increased by pressure or by taking a full breath. Some cough annoys the patient and he often complains of headache. Pain about the shoulder and running down the arm is a symtom of some importance in diagnosis though it occurs usually in chronic heart-disease. Delirium is often one of the symtoms both quiet and furious. Most of many of these cases have a difficulty in speaking being unable to get breath enough, and are obliged to sit up leaning foward. The pulse is increased in frequency

beats as high as 110 to 120 in the minute. It is also intermittent. Though strong at first it grows weak in the latter stages of the disease from the heart being so much impeded in its action by the adhesions, & the bulkiness & increased weight. These symtoms are not all present in every case and would not be of so much importance unless taken in conjunction with the subjective signs. The most reliable symtom is doubtless that ~~which~~ which is distinguished by auscultation, the "to and fro" sound of Pratson. or as the French call it the "Bruit cuir neuf" The loss of the respiration sounds over the region of the heart will be noticed. It is probably caused by the distended organ pressing away the lung from before it. Percussion will discover increased dullness over the praecordial space. This percussion

is usually quite painful. The cardiac sounds can hardly be heard where there is much fluid, and they have a distant sound as if far back in the chest from the auscultators ear. But to return to the new leather sound or Dr Watsons to and fro sound, that is heard at the commencement of the disease when the surfaces are dry and inflamed and is caused by their rubbing together during the hearts action. When the effusion comes on this sound is lost; probably the reason of this is that the cavity being distended with fluid either the heart and pericardium are prevented from coming in contact or coming in contact that contact is slight and the surfaces being moistened lubricated by fluid that no friction sound can be produced. But this sound returns after the whole or partial absorption of serum so Dr Clark says, though Watson makes no

mention of it. This absorption again allows the surfaces to rub upon each other and so produce the sound These sounds can be made more distinct by desiring the patient to take a full inspiration. This act distending the lungs brings the heart more directly under your ear making it more distinctly heard.
This second sound a return of the first does not last long for the serum being gotten rid of, the inflammatory matter comes together and adhesions are the result. While listening for the friction sounds the short quick beats of the heart will be noticed the sound of which is likened to that heard when the hand is held over the ear and tapped upon by the fingers of the other hand. The region of the heart has sometimes an appearance of tumefaction caused by an excessive amount of effused fluid this however is also visible in hypertrophy therefore not a distinctive sign

When Pericarditis comes on as a result of Rheumatism, it usually commences six or seven days after the rheumatic attack and should be treated with remedies appropriate to that disease. Alkalies to be given until the urine answers to test for them. Rochelle salts or citrate of potassa given at the rate of an ounce a day ~~given~~ in divided doses to prevent purging. The result of this treatment will be that when the rheumatism ceases the inflammatory part of the pericarditis will also cease, but the fluid still remains. That may be removed by bleeding in small quantities from the arm. Mercury may be used. Counter irritation is of use in the application of blisters. Leeches over the heart. Opium in moderate doses relieves the distress of the patient, and in its effect upon the skin assists in the cure. But the greatest dependence is upon diuretics for the removal of the

fluid. at the head of the list stands Iodide of potassium sometimes combined with digitalis to increase the effect. Opii may also be used or cream of tartar. Cupping behind the shoulders is also highly spoken of. These remedies with rest and quiet will probably effect a cure.

S. Cambaleng. Powell.

Among the many painful and often dangerous diseases to which our attention is called is that designated as Rheumatism, meaning flux, and expressive of the abnormal condition as understood by the early writers upon this subject, who supposed that an irritating humour flowed into the joints thus producing inflammation.

Rheumatism is a constitutional affection, attended with an irritation or inflammation, but from the ordinary form of which it is so different as to be spoken of as peculiar or specific.

One marked peculiarity is its tendency to [illegible] subsiding [illegible] and appearing in another; in this way it may visit every large joint of the body, but the metastasis most to be feared and guarded against is [illegible].

[illegible] augmented by motion is one of the most [illegible] symptoms, and it is generally accompanied [illegible] considerable amount of fever

disturbance called Rheumatic Fever.
The symptoms are usually located in the larger articulations, but are not confined to them, almost every part of the body being liable to an attack.
Of the nature of rheumatism we know but little it being a field still open for investigation. Many di[illegible]
ed in explanation of its phenomena.
Some think it a common inflammation of the joints; others a mere neurosis, because they hold that there is an intense pain suddenly disap-
[illegible]
may occur in the milder forms but not in acute.
That it disp[illegible]
[illegible] is shown by its disposition to suddenly
[illegible]
[illegible] suppuration. Dr Prout and others think it due to the abnormal presence of either [illegible]tic or uric acid in the circulation; this [illegible] not sustained, as chemical analysis [illegible] dated an excess of these acids in [illegible] these are often present

inflammatory affections.

That rheumatism is an inflammation [illegible] erally admitted, and its peculiarity is probably due in part, to the tissue in which it is developed.

It is located in the fibrous tissue, but why it should select this particular structure in which to manifest itself can only be accounted for by referring it to a predisposition, or diathesis, in which there is perverted nutritive action in the structure involved, and a consequent change in its elective affinity, causing it to appropriate the materies morbi, thus giving rise to the irri[illegible]

We have three principle forms of rheumatism [illegible]

[illegible] acute rheumatism the primary symptoms [illegible] of local inflammation, which may be [illegible]

[illegible] generally in the large joints and [illegible]

and producing a firm and firm swelling, rather
firm by fluctuation if the synovial membranes are
involved, due to their augmented secretion.
The joints are extremely tender and painful,
the patient dreading to have them moved or touched.
The inflammation is exceedingly liable to metastasis
or change of location, suddenly appearing in another
part, while the symptoms in the original seat
gradually subside, in this way it may visit many
or all of the large articulations and sometimes the
same one several times successively.
The local manifestations are soon followed by fever
and other symptoms of commencing fever,
succeeded by increased frequency of pulse, heat of
skin, furred tongue, thirst, and loss of appetite.
[illegible]
[illegible]
[illegible]

The bowels are generally constipated, the urine scanty, high colored, turbid, and acid.

[illegible] the morning, often accompanied with increase of pain which abates with the fever in the morning.

This form of the disease is very liable to metastasis to internal organs, particularly the heart [illegible] statement of Dr. Wm. Budd in nearly one half of the cases noted by him there was rheumatic inflammation of the heart. This inflammation is most frequently seated in the endo and pericardium, constituting [illegible] these membranes rendering them peculiarly susceptible to this form of inflammation.

[illegible] convalescence, as a mingling of anxiety and fear, pain and oppression in the region of the heart, palpitation, difficult breathing, [illegible] increased frequency of pulse. Delirium sometimes supervenes. — Cardiac inflammation [illegible] cause of acute

[illegible] muscles of the neck particularly the sterno-mastoid [illegible] the head to that side, with which the head is carried stiffly out, unless the causes were pain.

Pleurodynia is an affection of the intercostal muscles, its symptoms though resemble those of pleurisy, and it is liable to be mistaken for that disease.

[illegible] of the loins, sometimes extending to the [illegible] obliquely towards the front of the abdomen, it may occupy one or both sides. When severe the pa[illegible] [illegible] [illegible] [

muscular structure causing acute pain and spasm and terminating according to its severity, in immediate death, or a chronic affection with hypertrophy and dilatation.

alimentary canal, particularly the muscular coat of the intestines.

It may sometimes attack the diaphragm and there is no situation in which it causes more pain.

causing great agony.

Chronic rheumatism may appear either as a result

forms. It is not liable to change

and the heart is seldom involved.

Treatment

[illegible]

is of a full robust habit general bleeding is necessary and in some cases may be repeated once with advantage, but it is only in the early stages of the disease that it is beneficial. The inflammation in a large pro- [illegible]

general bleeding. Among the large number of cases [illegible]

and general hospitals, I have not seen one in which the surgeon considered venesection indicated. The plain unstimulating diet of the [illegible] may have some effect in modifying the disease. [illegible]

[illegible] as there is almost always constipation; they [illegible] be active but not drastic or stimulating; [illegible] anna and jalap. If there is [illegible] tion of the liver calomel should [illegible]

[illegible]

[illegible] has been employed in [illegible] with very favorable results in the hospitals of Paris by Mr. Gendrin and M. Martin Solon, and in London [illegible] Henry Bennett and R. Rowland. 3 to 4 drachms of the remedy was given by the latter in 24 hours, dissolved in a pint of water; thus administered it produced no inconvenience, and did not increase the tendency to [illegible] diseases. In some of the cases the relief [illegible] and the improvement was rarely delayed for [illegible].

Acetate of Potassa has been employed with similar results. Dr Golding Bird treated a large number of cases with remarkable success with this [illegible]. The pain declined as soon as the urine became alkaline and rose in specific gravity.

[illegible] Smith adopted the "Alkaline treatment" at the [illegible] hospital in 1854. "The plan of treatment usually [illegible] was, if the patient presented himself with [illegible] excitement of the skin and pulse, [illegible]

[illegible] and

various other remedies used in the acute form may at times be employed with advantage. Should there be symptoms of heart complicate the action of that organ may be reduced by the careful use of Digitalis, or Veratrum Veride, and counter irritation may be employed, as cups, or blisters, over the chest.

As a rule, local applications should be used with caution. Both in this and the acute form, as the disease if unscated, is liable to retreat within the citadel, and take possession of important organs.

[illegible]

General bleeding is not indicated or admissible in [illegible] form of the disease.

Cathartics should be employed as often as necessary [illegible] cum while it [illegible] will generally keep the [illegible] is one of our best remedies.

Dyspepsia.

Dyspepsia or Indigestion is a disease of civilization. It is the costly price we pay for luxuries. All civilized nations suffer more or less from it.

How happens it that this disease is so prevalent at the present day, is a question we often hear asked. The reason, is the more luxurious and the less active habits of the present generation.

Another reason which may be given for the prevalence of this disease is Fashion. She extends her [illegible] spread dominion over our malady. Dyspepsia like the Gout, is called a [illegible] able complaint. Few diseases [illegible] its [illegible] [illegible]

It is not particularly dangerous, and it is even doubtful whether it very much shortens life.

Symptoms.— These vary much in different stages of the disease, and in different persons. [illegible] the [illegible] of the stomach, [illegible] [illegible] prostrated, [illegible] causes producing a violent effect upon it, such as poisons swallowed accidentally or [illegible] [illegible] [illegible] [illegible] In this way an aggravated form of [illegible], may be produced in a short space of time.

In most instances its attacks come on gradually, beginning with a sense of fulness or uneasiness in the epigastrium, it is not pain, but often worse than pain, [illegible]

slight excess in eating and by articles which have not been easily digested.

They complain that such and such things do not agree with them, [illegible] mustard, pepper, and too often to a glass of spirits, these excite the stomach to an increase of action, affording temporary relief, but is sure to leave it in a state of debility.

The bowels are almost always constipated, unless complicated with some other disease. The hepatic [illegible] is often deranged, secretion of bile [illegible] diminished, and gives [illegible] stools, [illegible] it [illegible] black color to the [illegible]

at this time it is by abundant producing vomiting of bile or bilious diarrhœa.

Cold feet and hands are the indications of a continued state of the disease, the pulse is slow, and more [illegible] of the mind and body are performed more slowly, languor and exhaustion seems to pervade the system, the mind seems to be greatly involved. In this stage the respiration is more or less affected, on making slight exertion, as ascending a flight of stairs.

[illegible] pulse is a sense of lightness [illegible] the abdomen accompanied [illegible] of the bowels, [illegible]

this condition of the stomach cannot continue long. That which was formation-al, becomes organic. The organs that can't be become very [illegible] the lungs. The liver. The kidneys, and [illegible]

The danger from this disease, is that the strength of the system is so greatly reduced, it disqualifies it to over come other diseases. The [illegible] fear of persons dying with Dyspepsia. The reason seems to be, that [illegible] length of time, the organs secondarily affected, are so [illegible] that they swallow up the original disease.

[illegible] [illegible] [illegible] [

The greatest source of this complaint, may be included in the error in diet, and the influence of sedentary habits, we know by experience, that a certain amount of exercise is necessary to the preservation of health. In its effects on the system, the stomach seems to be the organ most immediately influenced, by the use of moderate exercise a tone is given to this organ, with a power of performing its functions with vigor.

The habitual use of food difficult of digestion, has the effect in a healthy stomach of producing [illegible] [illegible] upon [illegible] [illegible]ment. Large quantities of food than the stomach can bear operates upon the same principle. The habit of rapid eating leads to the same end.

partly through improper masti-
cation, but still [illegible] by [illegible]
loading the stomach.

The excessive use of alcoholic
liquors, opium, tobacco, strong coffee,
and tea produces Dyspepsia in the
same manner as indigestible food.
Spices used largely [illegible]
have a similar [illegible].

Among the other causes, are
those which have an immediate
depressing action on the stomach,
large quantities of luke warm water,
[illegible] cold drink, when the
stomach has little power of reaction,
[illegible]
of a depressing character, intense study,
[illegible]
to prostrate the system, or weaken the power
[illegible] be enumerated among the causes.

Treatment.— In the treatment the first and most important point is [illegible] include the regulation of the diet, the exercise and general habits of the patient. In the management of Dyspepsia, there should be suitable [illegible] and quality of the food.

The patient should be directed to [illegible] take time and eat at regular hours. To eat no more at a time than is sufficent to sustain the powers of the system, as a general rule should avoid ~~avoid~~ all culinary vegetables, except wheaten bread, which should [illegible]

Tomatoes prepared without butter, will agree with many individuals, they are usefull on account of their laxative properties, the same may be said of perfectly [illegible] and is a good diet for Dyspeptics.

Tender mutton or beef and [illegible] among the meats. The flesh of wild animals is more easily digested than that of the tame. Good venison is the most digestible of the meats. The fat of all meats should not [illegible]. In eating fowls care should [illegible] bat. There are other

articles of food which are well adapted to this class of patients, such as raw or slightly roasted terrapins, and soft boiled eggs.

Salt, mustard, pepper, and horse-radish should be used moderately. They are beneficial by assisting digestion, their stimulant effects are [illegible], but [illegible] all stimulants, that [illegible], they diminish the [illegible]tability, [illegible] the [illegible].

Exercise. The object of exercise is to equalize excitement, so that the supply of blood, and nervous influences may be equally distributed. [illegible] precepts as to constant action, we see this exemplified in every period of life. [illegible] may be divided [illegible] [illegible] active and passive,

Walking is a familiar example of active, and riding in a carriage that of passive, most exercises are more or less a combination of the two.

The effect of active exercise upon the muscles called into action, is to send to them an extra quantity of blood, and gradually enlarge their size, and increase their strength. [illegible] it [illegible] from passive exercise is the agitation communicated to different parts of the body, particularly the digestive organs. We see that exercise is the preventive as well as the remedy for disease of the digestive organs.

The best drink is cold water. Vinous and spirituous liquors, only

[illegible] injurious to the patient if long used, Coffee should never be used unless occasionally in small quantities as a nervous stimulant.

The patient should eat at regular intervals. Three meals a day are usually sufficient, the stomach should be allowed rest, and the habit of eating between meals and at bed time is also injurious. Large suppers are very injurious, they overtask the digestive organs [illegible] important that the food should be well masticated to favor its solution. This mixes it with saliva and renders it [illegible] of [illegible].

Two indications are presented [illegible] of medicines. First, to keep [illegible] Second to make a med-

crate stimulant impression upon the stomach. When medicines are employed, those should be selected which have no tendency to weaken the stomach, but unite a tonic or stimulant effect with their laxative power. Rhubarb and Aloes may be used, the former in all cases, the latter when there is no tendency to piles. Sweet Tincture of Rhubarb and Soda is sometimes a valuable remedy. There are several other preparations that may be used as laxatives, [illegible] Calcined Magnesia and Prepared Carbon.

When there is acidity of the stomach, Magnesia may be employed [illegible] remedy is [illegible] Rhubarb and prepared [illegible] in [illegible]

Subnitrate of Bismuth, is a valuable medicine given in suitable doses.

Tonics should be used with caution, when largely employed, and long continued they will increase [illegible] stead of [illegible] it, and at the same time extend the inflamation. When the stomach requires artificial means to excite it to a proper point to execute its functions, tonics may be employed.

The best for this purpose are the pure bitters Quassia, Gentian, and Columbo, when the patient is [illegible] other nervous functional [illegible]. Antispasmodics may be added

[illegible] face and restore perspiration. [illegible] baths, warm salt bath, [illegible] friction may be used. Flann[illegible] [illegible] to the [illegible] [illegible] seasons, unless in the very hottest weather. The coldness of the feet may be corrected by stimulant applications and warm coverings.

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